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EDITORS AND PROPRIETORS.

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An era is fast approaching, when no writer will be read and appreciated by the great majority, save and except those who can effect that for bales of manuscript, that the hydrostatic screw performs for bales of Cotton by condensing that matter into a period that before occupied a page.—COLTON.

ORIGINAL COMMUNICATIONS.

SURGICAL INTEREST OF THE SUB-PERITONEAL TISSUE.

BY HUGH M. TAYLOR, M. D.,

Richmond, Va.,

Professor of Practice and Clinical Surgery, University College of Medicine, Richmond, Va; Surgeon to Virginia Hospital, Etc.*

A profound interest is attached to all knowledge pertaining to the peritoneum and its morbid changes, and a vast literature commensurate with its importance is a sequence to this focussed interest. This is by no means true of the sub-peritoneal tissue—a structure surgically hardly less important than the peritoneum itself. The term sub-peritoneal tissue implies that this structure underlies literally the largest of all serous sacs in all of its ramifications, but it does more, it extends as a vaginal sheath around all of the structures that pass out of the abdomen, above into the thorax, below into the thigh and buttocks, and laterally with the blood vessels and nerves to the abdominal walls and surrounds partly or wholly many of the organs which are post-peritoneal.

The sub-peritoneal tissue in its extent may very well be compared to the sub-cutaneous cellular tissue—a continuous sheet of sub-peritoneal tissue underlying the peritoneum just as a continuous sheet of sub-cutaneous cellullar tissue underlies the skin throughout the whole extent of the latter. A septic cellulitis starting in the foot may rapidly travel through this spongy, continuous sheet of cellular tissue until it infects the whole limb. A post-peritoneal cellulitis starting as a retro-cæcal infection may culminate in a perinephritic, perihepatic or phrenic abscess.

Recalling the fact that this sub-peritoneal structure extends as vaginal processes along the blood vessels and nerves passing from

* Read before the Tri-State Medical Association of the Carolinas and Virginia.

the abdomen into the thorax, we have an explanation of the extension of suppuration from the abdomen or pelvis into the chest; how, for example, appendicial pus may be coughed up, and on the other hand how an empyema of the pleura may point to the thigh or a wounded thoracic duct, result in pointing in the thigh or groin, by traveling along through this spongy connective tissue I have seen post-peritoneal appendicial abscesses open in the middle line of the abdominal wall; on the buttocks simulating suppuration in the hip-joint and through the inguinal canal into the scrotum.

A few nights ago as I took my seat in a street car, the conductor said: "Doctor, you do not know me." He then reminded me that I had treated him twelve or fifteen years ago for abscesses in his abdominal walls (supposed iliac or lumbar abscess). His case so aptly illustrates post-cæcal suppuration from appendicitis and the wide range over which the pus may travel, that I have asked him to come before you. Let us go back to the beginning of his trouble. He tells us that it began with pain in the right side of his belly; that it lasted for weeks and that he was very sick. In a few weeks, he thinks it was, an abscess formed and pointed here near the crest of the right ilium. These two or three scars over the appendicial region represent the first openings. We see others near the median line and several on the left side over the left iliac region and some behind—a dozen or more in all. As was common in those days, I credited his trouble to lumbar abscess.

Most of you will agree that as our knowledge of appendicitis and its many erratic manifestations has increased we now rarely meet with lumbar and iliac abscesses. I should have known better at that time, and certainly would know better now from one occurrence which was that several foreign bodies worked out of the sinuses. This was before we appreciated fully the capabilities of appendicitis to produce surgical surprises. On examination the foreign bodies were shown to be coprolitbes. In this case, starting as appendicitis, suppuration in the post-peritoneal tissue, this infection has traveled back and forth in the continuous plane of connective tissue which connects the transversalis facia to the peritoneum and burrowed the abdominal wall in places until it was honeycombed.

In connection with this case, we have said enough to outline the possibilities of sub-peritoneal cellulitis. Certainly the subject of its inflammation is a very wide one. The condition may meet the surgeon at every step in his practice and in the pre-aseptic era was especially a post-operative complication of frequent occurrence. An Alexander operation, a herniotomy, operation for varicocele or castration may result in infection of the vaginal process of this tissue which passes out with the round ligament, etc., and a virulent diffuse cellulitis ensue. The only disaster incident to the Alexander operation in my experience resulted from wound infection and an upward and inward extension and a blocked pelvis. It may dog the steps of the abdominal and pelvic surgeon and may follow nearly all

the diseases and injuries of the abdominal and pelvic parietes and viscera and even the thoracic; and, as we have said, its products tend to travel in directions that may lead far and wide from its starting point. We find it described under the headings of retro-peritoneal, subphrenic, perinephritic, peri-pancreatic, iliac or pelvic cellulitis; but we have a clearer understanding of its scope if we recall the extent of this continuous sheet of post-peritoneal connective tissue.

By William Anderson, F.R.C.S., we are told* that structurally "the sub-peritoneal planes consist of highly elastic areolar tissue containing fat, and traversed by bands of unstriped muscular fibre. It varies in different individuals in amount from a thick accumulation loaded with fat as at the starting point in front of the spine to a gauzy film over the intestines and in the sheath-like prolongations which ensheath structures (i. e. vessels, nerves) and which pass out of the abdomen."

It is intimately related to the parietes, the peritoneum and the viscera. In its parietal relations it forms a continuous sheet around the inner surface of the abdomino-pelvic wall in contact with the diaphragmatic, transversalis, iliac and pelvic fascia. In its peritoneal relations it is loosely adherent to the parietal layer of the serous membrane, permitting the ready detachment of this in such operations as the extra-peritoneal ligation of the iliac vessels. Passing out along the renal vessels it invests the entire kidney and its ducts loosely with a capsule containing usually a large quantity of fat; it also covers the supra-renal body. As Glisson's capsule, it is prolonged over and into the liver, and it forms more or less complete sheaths for the other organs which are partly or wholly retro-peritoneal, such as the pancreas, the third portion of the duodenum and the pre-sacral portion of the rectum. In the pelvis it completely invests the greater portion of the mesial rectum and surrounds the capsule of the prostate in the male; it is in contact with a portion of the bladder in both sexes, and in the female it runs between the layers of the broad ligament to reach the hilum of the ovary, the inter-serous portion of the fallopian tube, the sides, and part of the front of the uterus and the greater portion of the vagina. The levators ani and coccygei with their fascia separate it from the perineal ischio-rectal and aural region.

Extra-abdominal prolongations are of great importance. The tissue ensheathing, as it does, the great and retro-peritoneal vessels and nerves and all their subdivisions runs with them in the form of vaginal processes in all directions—outward through the abdominal wall to the surface, backward into the spinal canal, downwards beneath Poupart's ligament into Scarpa's triangle, where it forms the femoral sheath and canal and through the inguinal canal into the labium or scrotum, through the obturator and sciatic foramina into the deep thigh; the perineal ischio-rectal and gluteal regions and

* British Med. Jour., Oct. 17, 1896.

down the back of the lower limb, finally in an upward direction it passes through the various openings in the diaphragm to become continuous with the subpleural tissue and mediastinum.

A consideration of the wide expanse of this tissue, its relations and extensions forecasts the surgical conditions in which it may become involved. Through its *structural elements*, it becomes subject to:

A. (1) Neoplasms, fatty, fibrous, myomatous, sarcomatous and cystic; (2) primary inflammatory process of surgical or accidental origin; (3) atrophic and degenerative changes which favor certain visceral displacements, as movable kidney, enteroptosis, hernia, etc.

B. Through its parietal, peritoneal and visceral relations it is liable to implication in all inflammatory and malignant affections of the abdomino-pelvic walls, of the peritoneum and of the viscera and to infiltration with secretions and excretions from the latter.

C. Through its vascular, glandular and fœtal contents, it is subject to hemorrhages, dropsical and lymphatic extravasations, to certain cystic tumors and to secondary malignant disease.

D. Through its peri-vascular extensions, it may become involved in processes arising in the thorax, perineal and ischio-rectal region, external genitals, lower extremity or elsewhere, or its own diseases may spread in any of the directions named as when a perinephritic or subphrenic abscess spreads into the mediastinum, pleura, lung or pericardium or when a sub-peritoneal fatty growth runs through the inguinal canal.

It may be very difficult for the surgeon to distinguish the starting point of any given sub-peritoneal manifestation, since the structure and connections of the tissue favor the most remarkably wide and rapid extension of morbid processes in various directions. The following classification may help to guide a discussion:

1. *Inflammations.* Classified according to etiolgy (1) idiopathic, (2) tubercular, (3) syphilitic, (4) metastatic, (5) lymphatic or remote origin.

Classified according to locality (1) retroperitoneal, including mesocolic, messenteric, etc., (2) subphrenic, (3) perinephritic, (4) iliac, (5) pelvic, including parametric, prevesical.

Primary (1) lipoma and febrolipoma, (a) retroperitoneal may become mesenteric, mesocolic, omental, parametric; (b) hernia through the inguinal, femoral or obturator openings through the linea alba and in other situations; (c) intraperitoneal after the manner of appendices epiploicæ.

In addition to fibroma, myoma and myo-fibroma, sarcoma, cyst, simple, hydrated and dermoid, as primary growths, we may have secondary, notably carcinoma or sarcoma conveyed by lymphatics or blood vessels.

Hemorrhage into this tissue may issue from rupture of healthy or diseased blood vessels.

Lymph exudations from disease or injuries of the receptaculum chyli or its tributaries.

Extravasations of secretions or excretions. Bile, feces, gaseous infiltration, air from communication, etc., with lung. Intestinal gases from perforation of gut, gases of decomposition.

Atrophy—leading to displacement of organs—as in movable kidney, gastroptosis, hernia, etc.

Our own experience has been limited largely to sub-peritoneal cellulitis and in a majority of cases the primary focus of infection was the appendix. Some years ago, a patient with a sinus in the mid-abdominal wall just above the pubes was under observation. She had a history of a sharp attack of abdominal or pelvic trouble some years previously. A probe passed into the sinus came in contact with a foreign body. A section disclosed an enterolith behind the right rectus muscle and a fistulous track was traced back to a buried appendix. Post-peritoneal infection incident to appendicitis was evident and the coprolith had burrowed through this sheet of sub peritoneal tissue until stopped by the more unyielding muscular or fascial tissue.

Some years ago I saw, in consultation, a young man who, some months previously, had had a large appendicial abscess incised and drained. He was discharged well, but later on a virulent cellulitis extended from within out through the right inguinal canal into the scrotum with the result of destroying the scrotum by extensive sloughing. Again I recall a sinus leading down to the crest of the right ilium. Several experienced surgeons had operated, expecting to find necrosed bone, but without success A careful exploration of the sinus traced it inside of the pelvis and finally to a buried appendix. Presumably from a non-sterile kangaroo tendon used in an Alexander operation, a virulent infection was started which culminated in extensive exudate in both broad ligaments in the cul de sac, a fixed uterus, blocked pelvis and prolonged convalescence.

In two cases of laparotomy for penetrating bullet wounds of the abdomen with hollow visceral lesions, drainage was practiced. The patients, in each instance, lived eight days and died from diffuse deep cellulitis of the abdominal wall Drainage along the suture tracks in through and through suturing of the abdominal wall lessen in many instances an extension of infection in the tissue. At the present time we have under observation a man who is coughing up a pint or more of pus a day. He has no lung or bronchial trouble, but there is a history which points to a perihepatitis, a perinephritis, pancreatitis, gastric ulcer on the posterior aspect of the stomach, and possibly as a sequence a phrenic abscess with opening into a bronchial tube.

Exceptionally met with even now, but much more commonly in preaseptic times, in such operations as herniotomies, castration, for varicocele, and virulent infection, etc., a wide traveling of the infection along the sheet of sub-peritoneal tissue ensued.

We know the peritoneum is not a nolle me tangere, as our predecessors supposed, its power in resisting septic invasion is now well known. We dread cellulitis more than we do dermatitis; we certainly dread a cellulitis of the scalp more than an inflammation of the superficial layers of the pericranium. Considered as a whole, a sub-peritoneal cellulitis is certainly an interesting and important study. Recalling that this tissue is continuous with that in relation with the pleura, we can easily understand a case we saw recently reported in which an appendicial abscess pointed immediately under the clavical, and as well comprehended how a wound of a large lymphatic in the thorax or abdomen may induce a post-peritoneal chylous collection which may point at Poupart's ligament, or as has been reported, in the buttocks or even near the knee.

Sub-peritoneal tumors, solid or cystic, are subjects of universal interest to the surgeon. Mr. Anderson tells us this is especially true of the lipomata, because of their large size and the difficulty of diagnosing them prior to section, and further that they "may be subdivided clinically into certain varieties: (1) those which remain confined to the sub-peritoneal spaces, such as the retroperitoneal, mesenteric, omental, parametric growths which nearly all originate retroperitoneally; (2) those which escape through weak points in the parietes forming fatty hernia, and (3) those which grow into the peritoneal cavity like the normal appendices epiploicæ."

A confusing experience was met with by myself not many months ago. I was called upon to operate upon what was supposed to be a strangulated irriducible inguinal bubonocele. A dissection revealed that the mass occupying the inguinal canal was not an enterocele nor an epiplocele, but a tongue-like mass of fat, evidently an overgrowth of retroperitoneal tissue. Such overgrowths induce hernia by stretching the canal, its atrophy on the other hand brings about the same condition by leaving the canal empty.

It should be borne in mind that while in a majority of cases these fatty masses simulating hernia are usually solid, but exceptionally they may bring down with them attached bowel, or even may be hollow and contain bowel.

Returning to the retro-peritoneal lipomata. While they occur in both sexes, they are twice as commonly met with in women, are usually single but may be multiple, usually are encapsulated but may be diffused, and are susceptible to such complications as fibrolipoma, myomatous or sarcomatous degeneration. In sizes they vary from very small to large masses weighing thirty pounds. Their removal is dangerous because of their size, their intimate relation to important structures post-peritoneal, such as blood vessels, nerves, etc. When they occur between the folds of the messentary, involves a danger to the nutrition of adjacent bowel. Other tumors and cysts developing in this tissue may attain even greater size, and are the *bete noirs* of experienced abdominal surgeons.

Dermoid cysts and hydatids are occasionally met with. Hemorrhage, traumatic or pathological, may occur in this tissue from injury to bony parts, as the fractures, or through degenerated blood vessels. Blood in any way effused may become circumscribed or diffused over a wide area. Mr. Anderson says "perinephritic hematoma may closely resemble a hydronephrosis or circumscribed extravasation of urine. An effusion of blood into the cæcum retzii often simulates an over-distended bladder. A rupture of the kidneys or ureter may lead to a false hydronephrosis," and he cites such a case occurring in the practice of Allingham, in which the urine filtered down into the pelvis. An obstruction to a wound of retro-peritoneal lymphatics may result in an effusion of lymph circumscribed or it may point at Poupart's ligament or pass upwards to the subpleural tissue—a sheet continuous with the sub-peritoneal tissue.

Gaseous accumulation may occur in this tissue just as in the subcutaneous cellular tissue. A lesion of the gastro-intestinal tract may be the source of gas. A wound of the pleura compound in the lung or skin may equally be a source. Gaseous abscesses in abdominal walls are reported.

As we have said, according to Mr. Anderson, "structurally, the sub-peritoneal tissue consists of highly elastic cellular tissue containing fat and traversed by bands of unstriped muscular fibre. The unstriped muscular fiber is seen in the form of bands extending above the fascia lining the abdomen to the viscera. Its most familiar example is the fibro-muscular band of Treitz, which supports the termination of the duodenum, but it is also found in the mesentery, the meso-colon, and the broad ligaments, and in all cases appears to be sustenticular in function."

An appreciation of the elasticity of this tissue and the sustaining power of unstriped muscular fibre is especially interesting to the surgeon in connection with ptosis of the abdominal and pelvic viscera. For a long time it has been known that absorption of the perinephritic fat was associated with nephroptosis. We also know that nephroptosis and gastroptosis, enteroptosis or Glénard's disease commonly coexist. This is true to such an extent that it is often difficult to decide which is the causative agent in the gastro-enteric and nervous disorders. Usually the nephroptosis is indicated. We have long thought that the failure of nephrorrhaphy to give the expected relief is due to the coexisting enteroptosis, etc. Visceral ptosis of the abdominal and pelvic organs is a field of much interest to pathfinders of to-day. Much good work has lately been accomplished in this field, and we think an appreciation of the part played by the unstriped muscular tissue, its sustaining function, and its degenerations may be the key which will unlock much of the mystery surrounding abdomino-pelvic ptosis.

A study of Mr. Anderson's valuable paper will be time well spent. Practically all that I know about the subject I have learned from this paper and the clinical cases its study has made clear to me.

I have, in my remarks, copied verbatim to a large extent from Mr. Anderson's paper.

THE CONSERVATIVE SURGICAL TREATMENT OF APPENDICITIS.*

By W. E. FITCH, M D.,
Savannah, Ga.

Mr. President and Gentlemen:

When asked by the efficient chairman of your programme committee to prepare and read a paper before this meeting. I was at a loss to decide upon a subject which would interest you, but felt that thought and experience justified the choice of a topic of such widespread interest as the one I have chosen, even though the literature of the past few years teems with contributions to the subject. It needs no apology that I should speak of that which has appalled the modern surgical world by its gravity and rages, and taken from us some of our brightest lights, best leaders and co-workers—Agnew, Little, Griswold, Lincoln, and a host of others—which has come to the doors of our homes and stricken so quickly when it does come. The subject has few rivals in the domain of surgery, and takes first rank to-day with typhoid pneumonia and rheumatism in medical thought.

There is yet a widespread division in practice as to the wisest care of any case; one class of practitioners will urge a non-operative course of treatment, others will urge an immediate operation.

I shall therefore speak on The Conservative Surgical Treatment of Appendicitis, and will not attempt to review its history, nor worry you with statistics, or make an exhaustive consideration of the subject, enumerate the numberless contributions to its literature, nor reiterate the oft-repeated methods of operation, but will try to impress upon your minds the advantages of, and necessity for, the early operation in all cases of appendicitis.

The term 'conservative surgery" is misleading, and as interpreted frequently conveys the wrong impression. It usually implies refraining from an operation. Ideal surgery, in the broadest application of the term, is preventive surgery.

What is conservative surgery in appendicitis, and to which class of practitioners does the term apply? Those who operate promptly, delaying no longer than necessary to make careful preparation; or, those who wait for symptoms which render an operation imperative; or, again, those who, as a matter of routine, trust to the *vis medicatrix naturæ*, plus diet, rest, opium, and purgative salts *ad nauseum*?

What does the practice of each of the above classes of practitioners conserve?

* Read before the Tri-State Medical Society of Georgia, Tennessee and Alabama, at Nashville meeting, October 8, 9, 10, 1901.

What is gained by non-operative treatment? Possibly an operation for the time being, but it is highly probable that cases so treated will recur (McRae) and ultimately have to seek surgical intervention; the appendix, a useless organ, is saved to be a constant menace to future life. Why retain it when its removal causes no disturbance of anatomical or normal relations, nor change in the functions of other organs, and is followed by no consequent disturbing sequences?

We hold that non-operative treatment is justifiable only when the consent of the patient, or those responsible for him, cannot be obtained; or, when he is placed under conditions such as may prohibit the employment of proper surgical aid.

Does operative intervention prolong life, health and usefulness? We answer in the affirmative. What, then, are the indications for chi-rurgical treatment?

I. In all cases when severe symptoms come on suddenly, either at the beginning or during the course of the disease.

II. When, in a mild case, the symptoms gradually increase in intensity to the end of the second day.

III. Patients in whom radical measures are undertaken sufficiently early in the attack (before the end of the first twenty-four hours) to give uniform assurance that the infection is confined to the appendix, and to those especially who having been treated medicinally with recovery, are consequently the more liable to a recurrence.

IV. Cases which hold out a reasonable hope that the appendix can be removed with safety, although infection has passed beyond that organ. This condition arises about the end of the third or beginning of the fourth day.

V. Cases in which the question simply resolves itself into that of opening an abscess formed in a mass of adhesions, which condition usually occurs at the end of the fifth day.

VI. When, with abdominal distension, a pulse of 120 or over, diffusion of pain, and other evidences of general peritonitis come on at any time during the course of the disease.

We should operate as soon as the diagnosis is confirmed, and the necessary preparations can be made, except in some cases in which, having been treated medicinally, the surgeon is not called until the third, fourth or fifth day of the attack. The question then arises whether or not operative procedure is contraindicated on account of the impossibility of removing the appendix without breaking down the adhesive barriers which nature has thrown out to protect the peritoneal cavity.

We may be confronted by cases and conditions in which it is too late for an early and too early for a late safe operation. In deciding this question, much will depend upon the experience of the operator and the facilities at his command for meeting emergencies as they may arise.

With thoroughly competent, well trained assistants to keep the field of operation well isolated from the rest of the peritoneal cavity as well as the small intestines out of the way, the operation at this period of localized peritonitis, with or without sero-purulent collections, is both safe and advisable. However, it will be next to impossible to avoid breaking down some of the adhesions, but with care on the part of the operator, and a perfectly trustworty assistant, removal of the appendix may be accomplished without undue risk of infecting the general peritoneal cavity. The present consensus of opinion of the leading surgeons inclines to an early operation.

Dr. George R. Fowler of Brooklyn says: "As soon as the diagnosis of progressive appendicitis is assured, the abdomen should be opened and the appendix removed."

Dr. Charles P. Noble of Philadelphia adds: "Every case, promising or unpromising, should be treated by a surgical operation at the earliest possible moment."

Dr. Cartledge of Louisville states: "We should operate on every operable case as soon as the diagnosis is confirmed.

Mistakes are made by waiting and watching for symptoms to manfest themselves, and thereby rob the patient of one of the best means known to science at the present day of saving life in this dreadful disease."

Dr. McBurney avers "that an operation is indicated before the pathological process has reached a very advanced state. This cannot be measured by time. In some the rapidity of the process is very marked, in others, very slow. Some patients call an attendant on the first day, others not until the second or third."

Dr. Hurd asseverates that, "The most successful operations are those performed within twenty-four hours after the onset of the attack."

Dr. Gage of Boston asserts that, "The earlier the operation, the less need of drainage, and the firmer the abdominal wall. Surgeons seldom regret an early operation."

Dr. Richardson, reporting one hundred and eighty-one cases, concludes as follows: "An operation is called for immediately in a sudden severe attack of appendicitis with pain, vomiting, more or less distension of the abdomen, with a high pulse."

Dr. Myer of New York avers that, "In acute appendicitis, if the pulse goes above 116 or 120, the indication is for an immediate operation."

My experience coincides with the views of a large number of representative surgeons that the early operation is the only treatment upon which reliance may be placed for a definite and curative result in the vast majority of cases.

In surgical treatment the course advocated should be instituted, and when feasible the appendix removed, even though surrounded by pus. The medical treatment should consist in the administration of a purgative and the local application of ice over McBurney's point, and kept up until the surgeon arrives.

Morphine and opiates should never be prescribed lest they mask the important symptoms which act as operative guides, pointing out the complex and critical process within and around the appendix; when administered they delude the practitioner into regarding as treatment what is nothing of the kind, and persuades him to fatal procrastination and thereby robs the patient of the only chance of recovery.

Opium and its alkaloids paralyze the nervous tone of the bowels and lessen resistance to microbic proliferation. The drug, by holding the bowels quiet, allows pus to become encapsulated by adhesions, arrests secretory functions, and renders diagnosis exceedingly difficult. Statistics of early operations, i. e., when performed during the first twenty-four hours, show a mortality of from 1 to 2 per cent., operations in some severe cases, and for suppuration gives a mortality of about 25 per cent. Between the extremes, 14 per cent.

Treves is generally considered a good authority, and the writer mentions him because he believes him eminently "conservative" in his statements at least, although not one whit better surgeon than a score of those in America.

Treves says of mild appendicitis, or perityphlitis, 99 in 100 recover (after operation). Of appendicitis with localized suppuration, 27 cases recovered and 2 died. Of diffuse peritonitis from appendicitis, 3 recovered and 20 died; 3 without operation. Relapsing cases, 42 in number, 37 operated and recovered, 5 recovered without operation, 5 complicated with other conditions, 2 recovered and 3 died.

The advocate of the "waiting and purging class" will argue that to operate too early is to operate unnecessarily, and while forced to admit the strength of their logic, it is nevertheless true that timely intervention is always preferable to voluntary procrastination.

Dr. Fowler of Brooklyn, in discussing this point, says: "A case demanding operation inside of twenty-four hours from the commencement of the attack is exceptional; but a case which is not practically well at the end of that time should be made the subject of operative interference without delay."

The conservative surgeon should by no means limit himself to this rule. In cases with severe symptoms, such as high temperature, quick, rapid pulse, and a succession of rigors, conjoined with exquisite tenderness in the right iliac fossa, and an anxious facial expression, do not waste valuable time waiting for other manifestations, but resort to the knife immediately—unless, of course, you wish to have a funeral.

If called late, after diffuse septic peritonitis has developed, operative measures are still conservative and should be instituted. Infection of effused serum following peritonitis, not necessarily suppurative, offers sufficiently encouraging results to impel the surgeon to give the patient the benefit of the skill at his command. The case is not essentially hopeless, even after general suppurative peritonitis

has commenced, although the chances for recovery progressively diminish with the lapse of time following its incipiency.

Recently in my practice a case presented itself after the development of the aforesaid condition. With the beginning of peritonitis symptomatology became characteristic, the abdomen had a board-like hardness, the temperature rose to 104 F., the pulse to 156; these symptoms were accompanied by chilly sensations, exquisite tenderness in the coecal region, and a pinched, anxious facial expression.

As soon as called, an immediate operation was advised and accepted. The little fellow made a slow but uninterrupted recovery and is now able to play daily with his companions, and suffers no inconvenience. An early operation, of course, implies an early diagnosis.

Typical cases should be easily diagnosticated, but, as in other diseases, many atypical cases are seen, and the practitioner who awaits a chain of symptoms with no missing link will not infrequently delay too long. As Dr. Joseph Price of Philadelphia has rightly expressed it, "Procrastination is the fool's paradise." Of the many valuable truths impressed by Dr. Senn, few are more important than the assertion that, "A physician cannot be well rounded and complete as such unless he is a good surgeon; and the well-rounded surgeon should also be a good physician."

Prof. Hare tersely remarks: "The wise physician is he who calls in the surgeon early, and the wise surgeon is he who is ready to operate at a moment's notice."

Dr. Hugh Taylor of Richmond voices this sentiment: "If the delayed operation is good few will deny but that the early operation is better."

Preventive surgery is, in the broadest sense, conservative. Opportune intervention seeks to prevent the disastrous consequences of appendicitis, and is ideal when compared with the desperate results sometimes obtained in operations in neglected cases which have been drenched too long with purgative salines and kept too long under the quieting influence of opium.

Often valuable time is lost and bright and useful lives sacrificed in attempts to send acute cases to the city for operation. This course cannot be pursued with safety in cases of gastric, duodenal or typhoid perforation; neither in strangulated inguinal hernia nor acute appendicitis can it be commended.

Advocates of non-operative methods of treatment will claim that it is infinitely better for the doctor unskilled in operations to trust opium blisters and salts than attempt an amelioration of his patient's condition through the instrumentality of a procedure with which he is unskilled. That with purgatives, poultices and analgesics he can sooth his patient into a premature grave is *non-disputandem*.

McDowell, Long, Simms and others have shown the world what cross-roads doctors can accomplish. Encourage the country phy-

sician to do an appendectomy while it is simple surgery. Far better an early operation, preventive in scope, by an amateur than one too long delayed and consequently of hopeless prognosis, although done by an experienced master. Minor surgery is the incipiency of the attack; major and not infrequently forlorn surgery, when the bowels are distended and paretic, the appendix rotten and surrounded by a stinking and corroding pus, producing intense toxæmia.

Such cases demand the highest possible surgical skill and entail a death rate of fearful magnitude.

It is claimed by the best surgeons that seventy-five per cent. of the cases treated medicinally recur and require constant medical supervision, or else demand prompt surgical intervention. It is a well recognized fact that the number of attacks furnishes no index to the extent of adhesions. In one attack there may be extensive matting, while many may occur with but little local damage. All are agreed, however, that each onset predisposes to a recurrence. And conservative surgery does not necessarily mean delayed intervention, for in skilled hands the knife is one of the greatest conservative agents known to surgeons.

THE EARLY OPERATION FOR APPENDICITIS FROM A PATHOLOGICAL STANDPOINT.*

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THE 99% RECOVERY SURE, BY SURGICAL TREATMENT OF APPENDICITIS 50% FAILURE BY MEDICAL TREATMENT—CATARRHAL APPENDICITIS RELIEVED BUT NOT CURED BY MEDICAL TREATMENT—16 CASES IN 400, OR 1 IN 25, MAY RECOVER BY MEDICAL TREATMENT, THE REST RELAPSE.

Appendicitis with or without coecitis, catarrhal *per se*, catarrhal with perforation, catarrhal with perforations and encapsulated in abscess, catarrhal appendicitis with perforation and peri-peritonitis and no encapsulated abscess wall. Appendicitis gangrenosa with or without encapsulation, with local or general peritonitis, and fulminating appendicitis.

Appendicitis obliterans, recurrent appendicitis, either catarrhal, perforative, or gangrenous. The inflammation may be confined to the mucosa *per se* and be acute, chronic, subacute, recurrent, and be an hyper-trophic or mixed, both, hypertrophic and atrophic in different parts of the lumen appendix. There may be involvement of the muscularis of the appendix with tension, infiltration, swelling and hypertrophy or hyperplasia. The peritoneum of appendix may present its glisten, shiny appearance as in the catarrhal appendicitis, or

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change in color to opaque, gray and show tension, heat, pain, redness, infiltration, swelling, or be roughened, adherent or attached to any organ in the abdominal cavity, right or left ovary and tube, bladder, uterus, sigmoid, liver, spleen, kidney, stomach, pancreas, arteries or veins, attached to right ovary and tube combined, or end in one large or multiple abscesses.

The appendical inflammation may be endo- or peri-appendicitis *per se*, or peri-appendicitis with peritonitis, the peritonitis local or general, benign or septic, with the characteristic inflammation of a serous membrane, viz, heat, redness, swelling, pain, tenderness, hyperæmia, exudation of serum, diapedesis of the leucocytes, a plastic exudation of grayish color, or a serous effusion and nature making barriers of grayish color to prevent further involvement of the serosa and localize the inflammation by plastic exudation and adhesions, or encapsulation of perforated or gangrenous appendix. Should the inflammation not end in resolution but continue, there will be necrobiosis of the mucosa, muscularis and serosa with perforation and peri-appendicitis with or without gangrene, and peritonitis and death unless checked and cured surgically. I say cured surgically. Appendicitis in any stage is a surgical disease and can only be met promptly; checked, removed and patient cured by, through and with surgery. The day of medical tinkering is over. About 95 out of every 100 M.D.'s tinker with appendicitis, like they used to do in intra-pelvic diseases, instead of sending them at once to the surgeon and have a prompt, safe, curative life-saving surgery done.

The doctors wait, dilly-dally, tinker, procrastinate, wait for peri-appendicitis with perforation and pus, or perforation and gangrene of appendix and septic peritonitis to occur, and as the case becomes desperate they call surgical counsel. *First*, because the patient has a peritoneum on fire, is dying, or will die. *Secondly*, hoping the surgeon may cure in a dire extremity. *Third*, to shield and protect the medical attendant and save the latter's reputation. In the beginning the patient had a local disease; when the surgeon is called it is not appendicitis pure, but a foe a thousand, yea, ten thousand times greater to cope with. It is a raging septic peritonitis, that moves, rages and travels with the fury, force and vehemence of a forest fire, and the surgeon too often has to say in sadness, "Doctor, the golden surgical opportunity has passed. Your message said appendicitis, but here we have *that vicious monster, septic peritonitis.*" Appendicitis *per se* is a local disease, easily and quickly cured by prompt surgery in skillful hands. The golden happy medium is early diagnosis, early preparation of the patient, early operation; operate while it is called, *to-day! to-day! to-day! to-day!* not to-morrow, for too often in surgery *to-morrow never, never* comes, but rapid death to the patient does come, and *professional disaster, chagrin* and *remorse of conscience must and should come* to the medical attendant who does not offer his patient prompt, skillful *surgery that is life-saving. Again, appendicitis is a local surgical disease.* Peritonitis

is a pathological apolyone. *Learn, learn to have patients operated on with a diseased appendix*—a local disease in a physiological peritoneum, a healthy peritoneum.

Mortality in this latter condition is about 1 per cent.

In Philadelphia patients often make their own diagnosis, come to the surgeon and ask and demand a surgical operation. The wide-awake, up-to-date general practitioners there examine the patient, make the diagnosis, send the patient to the surgeon, or promptly bring the surgeon to the patient. These Philadelphia practitioners say they are incompetent to treat the disease, that it is not a doctor but a surgeon that is needed to treat this disease—appendicitis.

Though Dr. Wilson, Professor of Practice in the Jefferson Medical College, is visiting and consulting physician to the German Hospital, there is no medical ward in this hospital for appendicitis, for appendicitis is a surgical disease and must be treated surgically by the surgeon, Dr. John B. Deaver, and cured and not let die.

Drs. M. and Joseph Price when asked what surgical disease he feared most, was most difficult to treat surgically and demanded the most prompt, skillful surgical treatment, said, appendicitis, and that the medical attendant used to wait until perforation and abscess, peritonitis and gangrene has taken place, the patient practically dying when the surgeon was called; but since the physicians have been through "the surgical revival" and found out that appendicitis is a surgical disease and given prompt surgery they most all get well, by early diagnosis, early preparation and early operation in expert, wise surgical hands.

Dr. J. B. Deaver confirmed what Dr. Price said, and reiterated that appendicitis is a surgical disease and needs the expert, wide-awake, safe, up-to-date, skillful, wise surgeon to treat the disease by operation; also said, appendicitis is a local surgical disease; too often in the past it was not the appendicular disease, but the angry, fierce, vicious, deadly peritonitis the surgeon had to encounter.

Prof. Laplace, of the Medico-Chirurgical College, Philadelphia, gave the same experience and urged the early diagnosis, early preparation and early operation to save the patient's life. About all get well when operated on early; at least one-third die when surgery is delayed and the deadly peritonitis has to be treated. The best place to operate is in a private infirmary, by the surgeon, where only the best surgical treatment and nursing and dieting can be had. The nursing in general hospitals too often is an abomination and not ideal. The patient is left alone in a state of mental disquietude, deprivation and desolation, and so far as nursing is concerned it is a failure, and the patient rolls, tosses, moves, tumbles and is let behave more like a maniac than a surgical patient that needs mental, bodily and surgical rest, comfort, solace and constant attention for days and nights.

Dr. Nicholas Senn said, it is the dangerous, deadly, delayed appendicitis with peritonitis that kills the patient and so difficult to

treat by the wise and skillful surgeon, that the great danger to be feared in the operation of appendicitis is that every cross-roads doctor will be operating for appendicitis and increase the mortality and bring an opprobrium upon surgery.

The time has come when the *surgical command, halt!* must be given and heeded by the general practitioner, the surgical tyros and tinkerers and fewer men do not only abdominal and pelvic but all kinds of surgery. *General surgeons should also serve an apprenticeship in abdominal and pelvic surgery before doing this major surgery.*

The Lord makes the true surgeons, the medical schools the incompetent ones. There is a large paying specialty now open to the A No. 1 physicians, and that is general practice. In the last fifteen years there have been made so many three and six weeks' post-graduate, pseudo specialists that the supply of A No. 1 general practitioners is almost exhausted. The general practice of medicine is a lost art. The XXth century begins with a few A No. 1 general practitioners, and pseudo-specialists, tinkerers, tyros have increased *ad infinitum.*

Fulminating appendicitis is sudden, rapid and furious in its course, may prove fatal in 24 or 48 hours, and be acute or recurrent, or sub-acute with perforation, abscess, gangrene with peritonitis.

Surgical treatment, abdominal incision, treatment of stumps, irrigation, drainage, intra-venous saline infusion. Aetiology, la grippe, exanthemata, rheumatism, malaria, typhoid fever, foreign bodies, follicular abscess of appendix, traumatism and acute or chronic ovarian and tubal diseases of right pelvis, coecitis are causes of appendicitis. Also twisted appendix or pressure, necrosis of appendix and microbic infections, the most important being tubercular bacillus and the commune bacillus coli, and the streptococci. As a rule, the attending physician does not call the surgeon until the awful, vicious peritonitis has begun; then it is not the appendicitis *per se*, but the *latter*, plus peritonitis; the appendix having softened, disintegrated, the coecal end plugged, encapsulated and healed, but the peritonitis raging like a wild forest fire. Nature doing what the surgeon should have done early without complications and peritonitis. Peritonitis from delayed operation kills! kills! kills! the patient, but the surgeon does not kill the patient by operation.

Retro-peritoneal abscesses, one or multiple, are too often of appendiceal origin. The writer out of about 140 microscopic examinations of appendix has never seen a healthy appendix. Drs. Price and Deaver say there are no healthy ones, that each possessor of an appendix has within himself an appendiceal cesspool. The writer has seen the abdomen opened time and again for other intra-abdominal and pelvic pathological conditions, and the patients and attending physicians said, "these patients had never had appendicitis," but in each case when the appendix was examined macroscopically the endo-appendix was diseased, or contained appendoliths of fæces or

partially obliterated, a partial appendicitis obliterans, or was saculated, divided into pockets, and contained foreign matter and ready for an explosion on the slightest provocation; again, the appendix had become convoluted, hypertrophid, even hyperplastic in its mucosa, muscularis, and its peri-appendix or serosa either elongated or shortened in length, the mucosa presenting a simple catarrhal, granular or ulcerative necrotic inflammation, or there was an hypertrophic or atrophic state of mucosa, the serosa *per se* might look healthy, or conjested, or inflamed, roughened, with a former plastic exudate or adhesions, or completely buried in exudates and adhesions, or inflamed, softened, disintegrated, having undergone necrobiosis and amputation, with pus or sero-pus in the abdomen, or in this condition encapsulated in an abscess wall, or gangrenous in part or its entirety and walled off or not, according to the power of resistance and recuperative power of the peritoneum to localize the disease and prevent general peritonitis.

The writer has seen better diagnosticians and practitioners in the country than in the cities. Every case of appendicitis is a surgical disease and should be treated by the surgeon.

The monkey knows when to drop the hot potato, and the medical attendant should learn and know the importance of turning an appendiceal case over to the surgeon at once, for it is a surgical disease, and the medical attendant may be able to diagnose it clinically and symptomatically, but thoroughly incompetent to treat the case surgically. The surgeon diagnosticates symptomatically, clinically, macroscopically, pathologically and microscopically.

Surgical treatment, abdominal incision. Where? What operation? Exposure of the pathologic conditions. Protection of healthy peritoneum and adjacent organs. Treatment of the appendiceal stumps. Irrigation. Drainage, central, unilateral, bilateral drainage through the lumbar regions, which? One or all in the same case? Surgical treatment of shock by intravenous saline 6-10 of per cent. solution, or by hypodermics, or per rectum.

Appendicitis is a surgical disease. The time has come when the physician may, can, must and shall sit at the feet of the surgeon and learn all about appendicitis, and be damned if he does not, and wear the mark of Cain, be abandoned by his brother surgeons and his patrons. Sometimes an appendiceal abscess may perforate into the bowel, vagina, bladder or externally and patient recover, but great must be the resisting powers of the patient, and great are the dangers to life of the patient and reputation of the medical attendant by procrastination.

When in doubt about operating for appendicitis, operate! When in doubt about irrigation, irrigate! When in doubt about drainage, drain! When in doubt about re-opening the abdomen, re-open it! When in doubt about post-operative irrigation or drainage, re-irrigate and re-drain.

These surgical rules will hold good as concerns most abdominal and pelvic cases. But it is best to do such good surgery in the abdomen. There will be no need for re-opening, re-irrigation or re-drainage.

If the abscess has perforated and emptied into the lumen of bowel, vagina, bladder, or externally, and peritoneum protected, surgical measures sometimes will not be necessary, but at this state it is not appendicitis *per se*, but also perforation, leakage, peritonitis, plastic exudation, encapsulated abscess of the inflamed area and perforation, drainage and evacuation taking place through one or more of the above-mentioned routes, nature doing what would have been prevented by early diagnosis, early preparation, and early operation by the surgeon. There is present persistent vomiting, slim running pulse, with collapse. It is wrong for the medical attendant to let these complications and sequellæ of appendicitis arise when he can prevent them by early diagnosis, early preparation, early, quick, skillful, life-saving surgery in expert hands. Let the motto be, Help! help! send for the surgeon! Give the Macedonian cry loud, quick, strong, often, and the medical attendant and surgeon be like Damon and Pythias in their professional conduct, both working to save the patient's life, and for the honor and glory of each defeat death and the undertaker.

Bad surgical condition of patient, feeble constitution, general peritonitis, advanced tuberculosis, Bright's disease, diabetes, malignant disease, and patient moribund, should deter the surgeon from operation, as a post-mortem is always preferable to an anti-mortem, and a black eye to surgery.

The environments of the patient sometimes mean death, and it is best to move patient to the proper place, private hospital or infirmary, for operation, nursing and after-treatment. In general hospitals the nursing is poor, neglectful, or can not be had, and the after-treatment too often given by incompetent amateur nurses and internes, who kill the patient.

The diagnosis may have been made early also, the preparation of patient and the operation performed with all the skill, pathologic lore, wisdom and technique of the best operator, and a dirty, incompetent medical attendant or nurse kill the patient in giving the after-treatment in the absence of the surgeon.

For the benefit of some M.D.'s who have a great desire to suddenly become surgeons will state, few abdominal and pelvic or general surgeons get rich or even make a living without general practice. Half or two-thirds of surgery does not pay a fee. Most private hospitals or infirmaries do not more than pay expenses. Most of the profession have no business capacity and little executive ability, and collect their accounts with reckless neglect, legal limitation and great fear patients will not employ them if they collect promptly, and do surgery on the same methods.

Who should operate for appendicitis? Many incompetent medical attendants, tinkerers and surgical tyros think they can split the belly, cut out the "tit," as they call it. Yes, they would do this. So could the butcher you trade with; but he does not believe in playing "Jack the Ripper" even in cutting beef, much less should incompetent men play "Jack the Ripper, do injury, violence and death to the patient, and bring an opprobrium upon surgery and the honest, skillful surgeon.

It must be confessed that, according to our present views, appendicitis is a surgical rather than a medical affection, particularly from the standpoint of treatment. Knowing from personal experience and observation, however, that general physicians are constantly meeting with cases of appendicitis, its prompt clinical recognition by the latter is not only a matter of interest, but also of great practical importance for two reasons: First, in order that surgical intervention can be substituted at the proper moment, and, secondly, because appendicitis is the leading serious disease of the intestinal tract.—Prof. Andres.

The results of chronic appendicitis upon the general health and nutrition of the patient are quite noticeable and tend to augment as time passes, if the attacks be frequent or the intervals between them grow shorter. The chief symptoms are those of a nervous type, emaciation and debility are also observed. The associated nervous symptoms are those of neurasthenia. These patients often become introspective and exceedingly irritable, the mental condition being accounted for, to a great extent, by the consciousness that there is ever present the over-hanging danger of a fresh attack with serious possibilities. In the severer forms of appendicitis 68 per cent. die before the eighth day. The general mortality of appendicitis is about 14 per cent.—Lutz.

Prof. Anders states the improved methods, chiefly surgical, of dealing with appendicitis have, however, reduced its death rate.

Whether imminent danger of perforation exists or not, the physician who is called to a case of appendicitis should at once request the services of a competent surgeon. Few surgeons subscribe to the doctrine that all cases demand operation; but since it may become necessary to perform celiotomy at any hour thereafter, the latter should help to settle the important question: "When is it necessary to operate in the case?" The physician who does not pursue the course above recommended falls short of his duty both toward the patient and toward the surgeon on whose skill he relies to remove safely the source of danger. With rare exceptions, prompt surgical intervention should be recommended. The indication for an immediate operation is undoubted in all cases of acute appendicitis, whether marked by sudden and severe or mild invasion symptoms, if seen at the beginning of an attack, and free purgation at the earliest possible moment is not followed by decided relief.

When great and illustrious physicians such as Profs. Wilson and Anders, of the Jefferson and Medico Chi, with such enormous experience, speak so boldly for the surgical treatment of appendicitis, practitioners of less mental calibre and clinical and pathological experience must learn to read the surgical sign-board, give their patients the surgical route to health and get into the surgical life-boats themselves to save their reputations and retain their clientele.

Dr. John B. Deaver states: In the treatment of appendicits my observation has forced me to the conclusion that there is but one course to pursue in order to obtain the best possible results, viz.: to remove the appendix as soon as the diagnosis has been made. The appendix should be removed so early in the attack that there will be no danger of septic absorption, purulent peritonitis, or perforation supervening, and in those cases of a fulminating character which have been almost instantaneous in their progress from the initial symptoms to the inauguration of a purulent peritonitis from perforation or gangrene early operation is positively demanded. Sometimes it is impossible to institute early operative treatment for one of several reasons: the patient may not live within reach of a competent surgeon; he may not be willing to have this treatment carried out until it has become evident that his only chance of recovery is by operation, or there may be some serious underlying condition, as advanced Bright's disease, diabetes, tuberculosis, etc., which would forbid active measures. Under such circumstances, expectant treatment is the only alternative. This embraces rest in bed, the judicious administration of laxatives, restricted diet, and the alleviation of pain. I believe that the appendix should be removed as soon as the diagnosis has been established. I recognize the fact that a very small percentage of all cases will temporarily recover without the use of the knife, but no one can tell which case will terminate favorably or which will go on to perforation and gangrene, with the train of fatal complications that is liable to follow. The best result in all cases is obtained by removal of the appendix in the beginning of the attack. *Appendicitis is a surgical affection*, and *should be treated as such.* We cannot foretell, with even the slighest amount of assurance, the issue of any attack of appendicitis. The main point to consider is, then, shall we risk the patient's life, or shall we accept the only alternative and remove the organ in its incipient inflammation? In this affection early operation is a conservative and not a radical procedure. We are not governed by the same reasons that influence us to perform the radical operation for the cure of simple hernia or for the removal of the uterus for a fibroid. In appendicitis we have before us the probable consequences of supuration, gangrene and perforation. The proportion of cases that have one attack, remaining perfectly well after its subsidence, is so infinitely small, compared to those that have repeated attacks with interval of invalidism, that I do not believe the rare exception should interfere with the rule, viz.: that where practicable all cases of appendicitis should

be operated upon as soon as the diagnosis has been established. Of course I do not include cases in collapse.

Persistent vomiting, a leaky skin, a rapid pulse in the presence of a diffuse peritonitis, and approaching collapse, in my judgment forbid operation. If the patient has chronic appendicitis, he should be confined to his bed for from one to two days before the time set for operation.

Depending upon the location of the pus, appendiceal abscess is met with as one of four varieties: First, and most common in my experience, is the collection located post-cæcal, or between the layers of the ascending meso-colen; second, the collection is immediately beneath the anterior parietal peritoneum, being confined by the cæcum, coils of small intestine, the omentum, the appendix, the parietal peritoneum and masses of lymph; third, the collection is located in the pelvis, which is usually entirely shut off from the general peritoneal cavity; fourth, pus is free in the general peritoneal cavity.

Infection of the general peritoneum, however, may be the result of lymphangitis, of gangrene, or of perforation of the appendix or cæcum. A mild form is met with in which the peritoneum is injected, turbid and sticky, but where there is neither effusion nor deposit of lymph. Prognosis good. Again the serous surfaces may be found glued together and a small quantity of a turbid effusion in the cavity. Prognosis good. If pus be present, one of two conditions will be encountered. In some, the peritoneum will be bathed in a quantity of odorless pus, the serous surfaces will be smooth and shiny, and the coils of intestine not glued together. Prognosis fairly good. In others, the pus will be less in quantity, but of a foul odor; the serous surfaces will be intensely injected and of a scalded appearance, and large masses of lymph in the streptococci or staphylococci are always present. When such conditions exist, the prognosis is unfavorable.

Inflammation or thrombosis of the right iliac vein, associated with œdema of the corresponding lower extremity, is a complication sometimes seen due to a localized appendiceal abscess. If a fragment of thrombus is carried into the general circulation, septic pneumonia or general septicæmia may be the result. At times, appendiceal abscess will burrow upward behind the liver, either through or beneath the diaphragm, and finally rupture into the lung tissue. I have seen several cases where the abscess following appendicitis has been evacuated through the mouth. In some cases abscesses of the liver is produced by fragments of thrombi being swept into the portal or general circulation.

The three cardinal symptoms of acute appendicitis are: first, pain; second, tenderness; third, rigidity.

Chronic Appendicitis—History important; palpation most valuable means of diagnosis.

Localized pain and tenderness most constant symptoms.

NOTES ON SOME SURGICAL CASES.

By T. M. McINTOSH, M. D.,
Thomasville, Ga.

These cases were, some of those of most interest to me, treated from November, 1899, to January 1st, 1901. In a general way, other cases are alluded to, that were operated on before that time.

Miss S., age 18 years, Brooks county: Since the beginning of her menstrual life, at 14 years, had been pale, anemic, with excessive menstrual flow, and more or less bloody discharge during the menstrual intervals.

She had been treated with tonics, ergot and astringent douches without relief. On examination the uterus was found to be somewhat displaced downwards, of normal size, no extra or intra-mural growths discoverable. Uterine cervix was forcibly dilated and its cavity curetted and packed with gauze.

The relief from bleeding was prompt; next, menstruation was normal, and there was rapid gain in color and flesh. The points of interest in this case were the excessive metrorrhagia in an anemic person, the usual result being amenorrhea, and the value of curettage where there was no enlargement of the uterus or fungosities in its cavity.

Mr. J., age 60 years, Decatur county, Ga.: Hemorrhoids. Ligation. Excision.

Miss R. S., age 40 years, Decatur county, Ga.: Hemorrhoids. Ligation. Excision.

Miss L. J., age 27 years, Tampa, Fla.: Hemorrhoids. Ligation. Excision.

The bowels are freely opened with salts given the night before the operation, and the morning of the operation an enema of water, which, being expelled, extrudes the piles. The parts are thoroughly cleansed, the sphincters dilated by traction with the thumbs in the rectum and fingers on buttocks; each pile is grasped by a double vosella forceps, and encircled by an incision just through the mucous membrane, above base of tumor. The mucous membrane is stripped down and the base transfixed by a needle, double threaded with catgut, and each thread tied separately with knots on opposite sides, and the tumor excised.

By this method of ligation there is no danger of slipping of the ligature. The mucous membrane, which has been stripped off the tumor, if the base be small, will fold itself over and cover the ligature, or if its base be large, it is stitched over by one or two fine catgut sutures.

If the pile is external they are only dissected out, and the cut edges united by sutures. In the considerable number of operations for piles that I have done, a few times I have employed Whitehead's operation, but it was somewhat more tedious and has no merit over other operations.

A few times when patients did not wish an anæsthetic, or would not submit to a cutting operation, I have injected with pure carbolic acid and the results have been good, though if the tumor is large, more than one injection is sometimes needed for an individual tumor.

Mrs. D. J. C., age 40 years: Multipara. Bright's Disease. Pregnancy. Induced abortion. There had been convulsions with the three last preceding pregnancies. In the last one of these there had been great œdema of the abdomen, hands and feet, with the accompanying disturbances of heart and breathing. Urine was 50 per cent. albumen. Treatment for this begun in the fourth month of gestation. In the eighth month, convulsions coming on, she was delivered with forceps. She remained in deep coma and developed high fever. Thirty-six hours after the delivery I saw her. Coma pronounced; temperature 105.2; breathing deep and slow; could not be aroused; uremic coma; septic fever. Into the uterine cavity, up to the fundus, was inserted a soft rubber catheter, and the cavity was irrigated for two hours with sterile warm water, in continuous flow, through rubber tubing as syphon.

In this time the temperature fell two degrees, the coma lessened, so that she could be made to open her eyes and respond in monosyllables. Irrigations were repeated daily until recovery. This method of continuous and prolonged irrigation of the uterine cavity has been of great value to me in puerperal sepsis.

Again, pregnant two months, she came to me to empty uterus. This, after consulting with her family physician, who had been with her in her previous troubles, and two other competent men, it was thought proper to do. Under anæsthesia, uterine neck forcibly dilated, the cavity emptied at once with blunt curette. There was no rise of temperature.

Miss M. C., Thomas county, Ga.: Ruptured perineum. Third degree. Loss of sphincter control.

Mrs. T. H. S., Decatur county: Ruptured perineum. Third degree. Loss of sphincter control.

In both these cases the entire closure of all the parts was made at one operation, and the result in each case was quite satisfactory. In one case the method of after treatment was daily movement from the bowels by salts. In the other they were kept constipated for a week, and the patient given animal broths. One of the ladies since the operation has given birth to a child without injury to the parts.

Mrs. J. G. E., age 35 years, Berrien county: Vesico vaginal fistula. Operation. Cure. From her last labor two years before the fistula dated. The labor was long; no instruments were used. There was a round opening the size of a silver ten-cent piece in the base of the bladder. The usual cone-shaped vivification of the edges was made and sutured with fine silk. The result was perfect.

Mrs. L. C., age 28 years, Ware county: Urethro-visico vaginal fistula. One child. A prolonged labor. No instruments. There

was destruction of the urethra from an inch behind the meatus into the base of the bladder, destroying the sphincter vesicæ. Because of this destruction of tissue, after vivifying the edges of the opening, the bladder had to be brought forward and stitched to the urethral surface, thus shortening the urethra and bringing the bladder downward and forward. Two operations closed the fistula entirely, but as there was no sphincter action, there was leakage through meatus—a surgical success, a physiological failure. Later, I opened the fistula again, hoping to get some sphincter control by stitching the bladder muscle ends together, laterally, first, and then bringing it forward as before to the urethral edges. Three operations were required for this, and the result was better, in that, when recumbent, there was no meatus leakage, nor when standing, if the bladder contained but little urine—full it passed out of meatus. I felt that I could do no more, but found that a small pledget of cotton inserted just within the vagina, by pressure on the urethra, prevented outflow even with the bladder full and the patient walking about. The patient is happy.

At the suggestion of Dr. T. Gaillard Thomas, who spends his winters here, I shall later, if the patient consents, cut out an elliptical piece of tissue along the axis of the urethra just behind the meatus, and down to the mucous membrane, and stitch these cut surfaces together, thus narrowing the urethral canal by tissue pressure. He had resorted to this in similar cases with success.

Mrs. B., age 24 years, Mitchell county, Ga.: One child. Bilateral laceration and erosion of the cervix. Trachelorapy. There was profuse menstruation, and many nervous manifestations, as intercostal neuralgia, irritable heart action, with sensation anesthetic areas on the outer side of both lower limbs. The general treatment was tonics, electricity and massage. All of her nervous symptoms rapidly disappeared and her health improved.

Mrs. M. E. K., age 35 years, Decatur county, Ga.: Five children. Bi-lateral laceration. Uterine enlargement; downward displacement. Curettage and trachelorapy. There was excessive flow at menstrual times, with profuse leucorrheal discharge during menstrual intervals. Rapid gain in flesh.

Mrs. R. H. H., age 25 years, Mitchell county: Childless. Four years married. Acute antiflexion of the uterus, small cervical canal. Uterine cervix forcibly dilated, hard rubber cervical drain inserted and allowed to remain for one week. Early in 1891 she became pregnant.

Mrs. L. S., age 35 years, Brooks county, Ga.: Five children. Youngest child three years old. Interstitial uterine fibroid abdominal hysterectomy—serre-noude. Recovery. The weight of the tumor was seven pounds. This lady had bled profusely for two years, and was quite pale and enemic. The operation with the serre-noude is almost entirely a bloodless one, and the stump is extra peritoneal. For four days there was nausea and considerable tampa-

nites. The temperature was never higher than 100.2. The nourishment was beef and chicken broth, egg albumen and water.

Mrs. A. P., age 19 years, Miller county, Ga.: Imperforate hymen. After two years of rather unsatisfactory married life they consulted their family physician, who referred them to me for operation. Examination revealed a thick, tough, somewhat elastic membrane, with an opening that admitted a small silver probe, which could be inserted into the vagina to the depth of three inches, by firm pressure with the point of the finger. There was no evidence of labiæ-minosæ, they being stretched and drawn into the vagina by frequent attempts at coition, so that they seemed only a part of the elastic hymen. The membrane was cut by crucial incision, and the four points thus made were cut off at their bases, which left a raw surface about one-fourth of an inch wide, which was approximated by stitches. There was erosion of the cervix, showing that the membrane had yielded to the intro-mittent organ sufficiently to reach the cervix and cause this traumatism.

Mr. C. H. H., age 24 years, New York City: Sent South with a diagnosis of chronic pneumonia resulting from la grippe. For three months there had continuously been fever, but he was not confined to his bed. Examination. Diagnosis: Tuberculous empyemia. Operation, April 10th. The patient refusing a general anæsthetic, local anæsthesia with ethyl-chloride, and an incision made between the eighth and ninth rib in the post-axillary line. Under general anæsthesia I would have resected a portion of the rib. The treatment was drainage with rubber tube, daily irrigations with carbolized water. In three weeks fever gone, appetite was good, gaining flesh, and out in his roller chair. He was taken with dysentery, which was prevalent here then, and to which he succumbed on May 8th.

Miss — —, age 30 years, Florida: Section of the pudic nerves. Had masturbated for a number of years, and for the last three years confined to an insane asylum. Her father, a physician, thought her mental condition the result of her habit, and requested a section of the pudic nerve, which supplies sensation to the genital organs. The operation was done May 3rd. Discharged May 18th, greatly improved in flesh and color. Now, a year after the operation, the physician in charge of the asylum writes me: "I see no change in her mental condition. I think degeneration has been progressive. As to her habit, she has been discovered in the act several times. Now, whether this causes pleasure or is simply a force of habit, I am unable to say. It may be that she does it involuntary, being so accustomed to the performance of the act."

Miss L. J., age 24 years, Tampa, Fla.: Inguinal hernia. Operation—failure. This case is one upon which I had also operated for hemorrhoids. She left the Sanitarium, unavoidably, two weeks after the operation for hernia. Had she remained longer and the wire remained in situ for a month, I do not think there would have been

recurrence. She wore a light truss, but writes me after a few months that there is no improvement in the hernia.

A. B., age 30 years, Thomas county, Ga.; Railroad fireman. Large inguinal indirect hernia. Operation—cure. Returned to his avocation.

R. S., age 60 years, Thomas county, Ga.: Inguinal indirect strangulated hernia. Operation—cure. In making the incision, when the muscles are reached, the skin and subcutaneous fat is dissected up on the abdominal side for a bed to transplant the cord. After cutting down to, and freeing the sack and cord, the latter is drawn out and placed in its new bed. The needle, with good, stout silk, is passed through the abdominal side of the tissues at the upper angle of the incision. The sack then folded on itself as you close a letter envelope, then refolded after the manner of a lady's fan, stitched latterly through and dropped into the cavity (McEnnis principle), and the suture completed, by passing through and through the tissues on the opposite side. This suture, when tied, brings all the tissues together, closing perfectly the folded sack and fixing it in the upper angle of the wound.

Other stitches, of the required number, are then placed in the same manner, through and through, with the cord outside of them, but in its new bed. Before tying any of these silk sutures, a small silver wire, with a curved needle, is passed by inserting in the skin one inch above the upper end of the wound and bringing it out at the incision through the deeper layers, the entire length of which is stitched with over and over continuous sutures and brought out through the skin one inch beyond the scrotal end of the incision. The ends of the wire remaining out are drawn tightly in opposite directions, which approximates nicely the deeper layers. The silk sutures are then tied, and are removed in about eight or ten days. The wire "longitudinal suture" remains as long as you like, usually a month, and is withdrawn by pulling firmly on one end.

Johns Hopkins' Hospital is partial to this "longitudinal silver wire" suture; and Phelps, of New York, uses silver wire and lets it remain. Used by myself in above cases only.

My total of herniotimies is 15. All, after a space of three years, are cured except the one mentioned above; and a large, umbilical, strangulated hernia in a fat, aged lady, in which it was necessary to remove about a double-handful of adherent and hypertrophied omentum and release considerable intestinal adhesions. The hernia remaining was only the size of an egg, which a light truss or pad retained in place.

Interesting only from its rarity was a neuroma of the infra-orbital nerve. The subject, a negro woman 30 years of age. The tumor had only existed a few months, and was the size of an English pea, giving severe and constant pain. Excision. Cure.

There were four operations for senile cataract. The result in all being good. My total of cataract operations are eighty-six, seventeen of them being reported some years ago.

There were five eneuclations of the eye-ball, which are of interest only by reason of the causes for which they were done, and the need for early treatment to prevent such conditions.

Two were for injuries and three for chronic painful glaucoma, with loss of perception of light; one of the injured was mutilated beyond the hope of saving the sight, eneuclated at once. The other was done one month after a sling shot had chipped a piece out of the sclerotic in the corneo-scleral junction, without entering the globe, and in this time, in the well eye, sympathetic plastic iritis had progressed so far that good vision will never be had again.

It is imperative and good surgery to remove injured eyes at once, when there is no hope of vision. In several cases of chronic painful glaucoma, with vision hopelessly gone and where the external appearance of the eye had not been affected, large iridectomies were made—only as a relief from pain—and not for visual purposes. The results of iridectomy in the beginning of glaucoma are of such great value, and the disease so fatal, visually, if not so treated, that early recognition and early iridectomy is of the greatest importance to prevent entire loss of vision, and often the ball itself.

Private Sanatorium.

Liability of a Physician for Abandoning a Case.—It is a settled rule of law that a physician cannot be compelled to render professional services. Actions have been brought against physicians because of their refusal to attend a case. The fact that a license is obtained does not require that he shall practice at all or on other terms than he may choose to accept. It has been repeatedly held that the practice of medicine is not affected with a public use such as common carriers, innkeepers, etc.

When a physician has accepted a case he cannot voluntarily abandon it without rendering himself liable. He has entered into a contractual relation with the patient, the terms of which he must fulfil.

In a recent case, Lathrop vs. Floyd, in the Supreme Court of California, 63 Pacific, 1007, the defendant, a physician, was employed to attend the plaintiff during her first confinement. He assumed charge of the case, visiting the plaintiff at intervals until he deemed it proper to employ instruments to aid in the delivery. The plaintiff at this point shrank back and screamed, compelling the defendant to let go the instruments. The defendant threatened the plaintiff that if she did not quit screaming he would quit the case, and on the failure of a second and third attempt to use the instruments he abruptly left the house. This was at midnight, and it was an hour or more before another physician could be obtained, after which the plaintiff was safely delivered with the use of instruments.

The courts remarks in the opinion: "It does not appear that the defendant's treatment of the case up to his abandonment of it was

either negligent or unskilful. It does not appear that undue physical injuries were inflicted by his treatment, either upon the mother or the child. If either suffered in this respect it is demonstrated that the actuating case was the conduct of the patient in moving and shrinking while the instruments were actually inserted."

The law as laid down by the court was that a physician might elect whether or not he will give his services, but having accepted his employment and entered upon the discharge of his duties he is bound to devote to his patients his best skill and attention, and to abandon his case only under one or two conditions: (1) Where the contract is terminated by the employer, which termination may be made immediate; (2) where it is terminated by the physician, when it can only be done after due notice and an ample opportunity afforded to secure the employment of other medical attendance.—*Medicine.*

Great Truths

"Of thorns men do not gather figs, nor of a bramble bush gather they grapes."

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THE PARASITE OF CARCINOMA.

The question of the existence of the parasite of carcinoma, which has been discussed in medical literature for the past ten years, is again brought prominently to the front by a number of articles in the recent journals, with Roswell Park on one side of the question and Nicholas Senn on the other.

Park makes use of the works of Gaylord and others at the Buffalo Laboratory and confirms all his statements by the recent reports of Schüller, of Bonn. He maintains that the parasite is a large body with a diameter about equal to four red blood cells, and show both young. They are so large and abundant that that they are usually mistaken for cancer cells, from which they can be distinguished by a differential stain and by slight mobility when examined in the fresh state on a warm stage. While they do not grow on any artificial culture medium they will multiply if a piece of fresh tumor be placed in a gelatin capsule in the abdominal cavity or in a rheostat at a temperature of 37 C. The new colonies look like sago granules, which adhere to the sides of the tube or float around in the liquid exudate. When the nearly pure cultures thus obtained are inoculated into a rabbit they produce carcinomatous tumors, which, in turn, form metastases.

Reasoning from analogy, cancer is very similar to tumors due to bacteria and matastatic deposits in the same way. Like bacterial tumors, can be inoculated from one person to another, and the sides

of a wound may become infected while removing a cancer from some internal organ. One case is reported in which a cancer of the rectum was removed by a Kraske operation and a carcinoma occurred in the skin at the site of the scar while there was no recurrence at the site of the original disease.

Senn, in an exhaustive article, reviews the vast amount of futile work that has been done on the subject and maintains that the old Conheim theory of cancer is the correct one. The bodies seen in cancerous tissue are not parasites, but are forms of cell metamorphosis and degeneration.

Cancer differs from bacterial tumors in that they are formed from and resemble the structure in which they originate, and the metastases are similar to the original tumor while bacteria tumors are the same in whatever structure they occur.

There is no proof that cancer has ever been inocculated, and numerous attempts to produce a cancer by direct inocculation have resulted in failure. So sure is Dr. Senn of this point that he has had himself inocculated by a piece of fresh cancer from a lip. The little papule which formed at the site of inocculation soon disappeared and now there is present only a slight scar.

The discussion is certainly interesting and promises to be great value, but until it is settled beyond a shawdow of a doubt that carcinoma is not inocculable, we hope Dr. Senn will get a cheaper man for his experiments. W.

THE NATION'S DISGRACE—PRESIDENT OF THE U. S. INVITES A NEGRO TO THE WHITE HOUSE TABLE.

The news from the Capital that Booker T. Washington, of Alabama, had been a guest of in the White House at a dinner with President and Mrs. Roosevelt and family, and that after dinner there was the usual social hour over after-dinner coffee and cigars, is a sudden jar to the favorable sentiment that was crystalizing in the South in favor of the new President. He should remember that the table at the White House is not a private board. It is in a measure the nation's board, and as such it is impossible for Teddy to entertain a negro at his table in the White House without, in a certain sense, making him the guest of the nation. Opposition to this species of social equality is not purely a southern prejudice. The hotels in New York City do not open their registers and bills of fare to negroes. This is done in justice to popular sentiment, which is not an empty one, but which has behind it the vital element of race preservation. For the Anglo-Saxon people have never associated, assimilated, intermarried, or amalgamated with the dark races.

President Roosevelt throws the fat into the fire by giving countenance to the negroes' claim for social equality by having one dine in the White House with himself, Mrs. Roosevelt and children. We

admit that Booker T. Washington is the representative man of his race, a useful citizen and a decent negro, but he is a negro all the same, and between his people and the whites there can be no social equality.

Should President Roosevelt seek to follow up this startling departure from the precedents of a century by inviting negroes to White House functions, he will find himself in some very awkward and mortifying situations when his white guests resent the innovation and refuse to co-operate in it. The South does not relish the negro in office, but that is a small matter compared with its unalterable opposition to social equality between the races. President Roosevelt has slapped the faces of every decent white person in the United States and precipitated an issue that has long since been fought out, and which should have been left in the list of settled questions.

If rumor be true, this is not the first time "Teddy" has put his feet under the same mahogany with a negro. While Governor of New York he conferred social equality on a negro by entertaining him at the Executive Mansion in Albany. In this instance the negro eat at his table and occupied the guest's chamber. President Roosevelt, negro-worshipper that he is, will soon find out that not even the head of the greatest nation on earth can reverse the laws of nature or change the verdict of ages.

A dinner given by one man to another in the home and privacy of his family means that the guest or his son may woo and win the host's daughter; when the one man is a white man and the other black, it means that there is but one step more to miscegenation—a sinful and wilful breaking of God's laws.

When George Washington, first President of the United States, expressed displeasure on seeing a Frenchman fondle a negro baby, he gave recognition to the instinctive prejudice of race perpetuation which is at once normal and ineradicable because it is nature's barrier against miscegenation and the merging of all races into one. And what a George Washington recognizes a Roosevelt cannot ignore. No people can see this great truth as the Southern people see it. All the philanthropists, all the negrophilists, all the social hermaphroditists, all the political spoilsmen in quest of votes, and even Theodore Roosevelt, President of the greatest country on earth, cannot rub it out. F.

EDITORS' TABLE.

Mr. Frank A. Ruff, President and Treasurer of the Antikamnia Chemical Co., St. Louis, has recently been elected First Vice President of the Fourth National Bank of St. Louis. The institution has a business man and a financier of financiers to assist the direction of the bank's business.

The Savannah Medical Society resumed its meetings on the evening of the 18th of October. The Society met at the office of Dr. A. B. Simmons with the President, Dr. J. W. Daniels, in the chair, with following members present: Ralston Lattimore, M.D.; A. B. Simmons, M D.; R. M. Thomson, M.D.; J. Lawton Hiers, M.D.; M. L. Currie, M.D.; W. E. Fitch, M.D.; Dr. Rawls, J. L. Farmer, M.D., and Geo. R. White, M.D. Many interesting clinical cases were presented and freely discussed, after which our host entertained with a bountiful repast in the dining-room.

* *

Military Surgery.—The Association of Military Surgeons of the United States have at last succeeded in perfecting long-cherished hopes of establishing a journal devoted to military surgery. The Journal of the Association of Military Surgeons of the United States will be a quarterly at present, but arrangements are in preparation to make it a monthly next year. Dr. James Evelyn Pitcher is editor.

* *

New Orleans Polyclinic.—Fifteenth annual session opens November 4, 1901. Physicians will find the Polyclinic an excellent means for posting themselves upon modern progress in all branches of medicine and surgery. The specialties are fully taught, including laboratory work. For further information address Dr. Isadore Dyer, Secretary, New Orleans Polyclinic, P. O. box 797, New Orleans, La.

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* *

Notes on Sugar.—The total consumption of sugar in the United States last year was 2,219,847 tons, and based on the average increase of 6.34 per cent. during the past 19 years, the consumption this year should be 2,360,585 tons. Of this quantity 1,000,000 tons in round figures will come from American sources, say Louisiana being able to produce 350,000 tons; United States beet factories, 150,000; Hawaii, 850,000, and Porto Rico, 150,000, all being free of duty, leaving 1,360,585 tons to come from other sources and on which duty is paid. The average duty assessed is $36 per ton, or a total of $48,981,060. The price of all the sugar consumed, however, being enhanced to the extent of the duty of $36 per ton or a total of $84,981,060, it is evident that $36,000,000 additional is paid by the people in order to provide the government with $49,000,000 for revenue, of which the government is not now in need. If the duty is taken off Cuba sugar, the benefit of 85,000,000 goes to the people.

On October 8th, the quotation for Cuba Centrifugal Sugar 96° test, free on board Cuba, was 1.96c per pound duty on same amounts o 1.685c—equivalent to 86 per cent. ad valorem.

How the Dead May be Raised.—The Indian Medical Record, Aug. 28, 1901 (Charlotte Med. Jour., Oct., 1901), gives an account of the following interesting cases. The editor says:

Starting from the fact that after death the tissues lose their irritability within certain but varying times, Herr Prus undertook a number of experiments upon dogs to demonstrate that, should certain stimuli be applied before this function disappeared, the vital organs would again resume their usual conditions. He was able by post-mortem exposure and massage of the heart to produce contractions of that organ and respiration, which continued for a few hours. The method was later tried upon a suicide some two hours after death The heart contracted, but only feebly, and soon stopped. Anothe patient died from an overdose of chloroform. Artificial respiration and all the usual remedies had been tried without avail; air had been blown into the lungs, but the patient remained pulseless, and without any attempt at respiration. He was undoubtedly dead Not till then was heart massage practiced. His chest was opened and the heart was grasped by the hand of the operator, compressed, allowed to dilate. No contractions of the walls could be at first felt, but after a few compressions the rythm of the heart was gradually resumed. At the same time air was forcibly blown into the lungs, and the chest pressed to imitate expiration. When the heart had been massaged for thirty minutes a respiratory gasp occurred. It was a little time, however, before the patient respired unaided, and then only at intervals. The operation had been commenced at 8 a. m. and lasted until 12 noon, the heart contracted vigorously, the respirations were almost normal, the pupils of his eyes contracted and dilated with inspiration and expiration. The pulse was strong and regular, and the jaws were tightly clenched. The man was alive again. The several wounds were at once sewn up and dressed, and the patient conveyed to his bed. For twenty minutes breathing proceeded satisfactorily, but quite suddenly it became embarrassed and quickly stopped. Air inhalations were again given and continued for eight hours, together with artificial respiration, but no result was obtained. The heart, however, continued beating until 8 p. m., when it became gradually feebler and soon stopped. The dead man was only called back to life for a short time—the great fact is that he undoubtedly was called back.

NEW BOOKS.

FROM W. B. SAUNDERS & CO.

A Text-Book of Diseases of Women—By Charles B. Penrose M.D., Ph.D., formerly Professor of Gynecology in the University of Pennsylvania. Fourth edition, revised. Octavo volume of 539 pages, handsomely illustrated. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, $3.75 net.

Regularly every year a new edition of this excellent text-book is called for, and although it is distinctly a text-book, it appears to be

in as great favor with physicians as with students. Indeed this book has taken its place as the ideal work for the general practitioner. The author presents the best teaching of modern gynecology, untrammeled by antiquated ideas and methods. In most instances only one plan of treatment is described. This is a great advantage, since it prevents confusion on the part of the reader and also gives space for carefully detailed instruction on the methods recommended. In every case the most modern and progressive technique is adopted, and the main points are made clear by excellent illustrations.

This is a handy volume, written in a clear, practical manner by an author who is a master of the subject under consideration. Dr. Penrose has very wisely omitted chapters on anatomy, physiology and pathology, which subjects are thoroughly covered in modern text-books on these subjects, and only alludes to them when it is necessary for elucidation of some important subject. The author has intended this book for the medical student in particular, and presents in a clear, terse style the best teaching of modern gynecology untrammeled by any antiquated theories or modes of treatment.

The new edition has been carefully revised, much new matter has been added, and a number of new original illustrations have been introduced. In its revised form this volume continues to be an admirable exposition of the present status of gynecologic practice in this country.

The book is to be commended without reserve, not only to the student but to the general practitioner as well, who wishes to have the latest and best methods of treatment explained with absolute clearness.

Saunders' Medical Hand-Atlases—Atlas and Epitome of Special Pathologic Histology—By Docent Dr. Hermann Dürck, of the Pathologic Institute of Munich. Edited by Ludvig Hektoen, M.D., Professor of Pathology in Rush Medical College, Chicago. Vol. II.—Liver, Urinary Organs, Sexual Organs, Nervous System, Skin, Muscles, Bones. With 123 colored illustrations on 60 lithographic plates and 192 pages of text. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, $3.00 net.

This volume continues the subject of Pathologic Histology in the Saunders Series of Hand-Atlases, and is, if anything, even handsomer than its companion volume, issued some months ago. As in all the volumes of this well-known series of books, the illustrations are the special feature. The subject of pathologic histology is particularly adaptable to illustrative treatment. Indeed, in no other way can the subject be adequately presented in a text-book. The colored lithographs of this volume are beautifully reproduced, and are extremely accurate representations of the microscopic changes produced by disease. The great value of these plates is that they represent in the exact colors the effect of the stains which are of such great importance for the differentiation of tissue.

In this volume are considered the special pathologic histology of the liver, the urinary organs, the sexual organs, the nervous system, the skin, the muscles and the bones. The pathologic histology of the organs of special senses has not been discussed for the reason that it is made the subject of a separate text-book. The systemic diseases of the central nervous system have been omitted, because they are treated more fully elsewhere. The third volume will appear about the last of the present year and will contain an exposition of General Pathologic Histology.

The text portion of the book is admirable, and, while brief, it is entirely satisfactory in that the leading facts are stated, and so stated that the reader feels he has grasped the subject extensively. The work is modern and scientific, and altogether forms a concise and systematic view of pathological knowledge.

A Text-Book of Obstetrics—By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania. Third edition. Thoroughly revised and enlarged. Royal octavo, 873 pages, with 704 illustrations, many of them in colors. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, $5.00 net.

Immediately after its publication this work took its place as the leading text-book on the subject. Both in this country and in England it is recognized as the most satisfactorily written and clearly illustrated work on Obstetrics in the language. The outcome of a large, practical experience, it is clear, comprehensive, original and up to date. The illustrations form one of the features of the book. These are numerous and are works of art, most of them being original.

In this edition the book has been thoroughly revised. New matter has been added to almost every chapter, notably those treating of Diagnosis of Pregnancy, the Pathology of Pregnancy, the Pathology of Labor, and Obstetric Operations. More than fifty new illustrations, including three colored plates, have been introduced. The literature of the subject has been carefully reviewed, and the most important references since the last edition are given.

The subject matter is divided, for convenience, into eight parts. Part I, Pregnancy; Part II, Physiology and Management of Labor and the Care of the Puerperium; Part III, The Mechanism of Labor; Part IV, The Pathology of Labor; Part V, The Pathology of the Puerperium; Part VI, Obstetric Operations, and Part VIII, The Newborn Infant. Each part is written in a clear, practical style peculiar to the author. We predict for this work a large sale, and no doubt the author will soon have to issue the fourth edition. The united thanks of the profession are due Dr. Hirst for the favor to the students and practitioners in giving them such a practicable well-written text-book. The reviewer lays it down feeling sorry that there is not just a little more of it. We congratulate Mr. Saunders on the elegant style of paper and type and commend it to every student and practitioner.

A Manual of the Practice of Medicine—By George Roe Lockwood, M.D., Professor of Practice in the Women's Medical College of the New York Infirmary. Second edition, revised and enlarged. Octavo volume of 847 pages, with 79 illustrations and 20 full-page plates. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, $4.00 net.

This work presents the essential facts and principles of the practice of medicine in a concise and available form, adapted to meet the requirements of those who heretofore have been obliged to resort to the larger works of reference.

The entire book has been subjected to a thorough revision. Many portions have been entirely rewritten and a number of subjects have been introduced. Among the new sections may be mentioned Bubonic Plague, Gastroptosis, Gastric Analysis, and Reichmann's Disease. The subject of Malaria has been entirely rewritten. The section on Diseases of the Digestive System has also been largely rewritten, especially the following subjects: Gastritis, Dilatation of the Stomach, Gastric Atony, Ulcer of the Stomach, Gastric Neuroses, Enteritis, Colitis, etc.

The descriptions of diseases and their treatment given are terse and clear, and the work gives in a most concise manner the points essential to treatment usually enumerated in the most elaborate works.

The arrangement of the subject matter and the classification of diseases is that adopted by Wm. Osler. The author devotes special care to the etiology and pathology of diseases, including indicative diagnosis and details of treatment, believing that these phases of the subject treated form the groundwork for an intelligent and successful pursuit of the practice of medicine. The orthography and terminology is that adopted by standard lexicographers. We commend this as a handy, concise, terse manual, and predict for it a large sale.

A Laboratory Course in Bacteriology—For the use of Medical, Agricultural and Industrial Students. By Frederic P. Gorham, A.M., Professor of Biology, Brown University; Bacteriologist to the Health Department, Providence, R. I. 12mo. volume of 198 pages, with 97 illustrations. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, $1.25 net.

Bacteriology is essentially a laboratory study. It is only by actual laboratory work that it can be taught in such a manner as to serve any useful purpose. It is also a subject of very general scientific interest. Courses in bacteriology are no longer confined to the medical schools, but are being introduced into colleges and agricultural and industrial schools. This volume has been prepared as a guide to the practical details of laboratory work.

The volume contains ten chapters and an appendix, viz: Chapter I, Microscopic Examinations and Bacteria; II, Morphology of Bacteria; III, Reproduction of Bacteria; IV, Classification of Bacteria;

V, Sterilization; VI, Preparation of Culture Media; VII, Culture of Bacteria; VIII, Determination of Species; IX, Analysis of Water, Soil, Air and Milk; X, Pathogenic Bacteria; and an appendix on Measurements, Moulds, Yeast, Stains, Reagents and Photography.

The book is intended to present the subject in such a general way as to lay a broad foundation for later specialization in any branch of bacteriology. By a judicious selection the course can be made to conform to the requirements of medical, agricultural or industrial students.

Dose-Book and Manual of Prescription-Writing, with a List of the Official Drugs and Preparations, and the more important Newer Remedies. By E. Q. Thornton, M.D., Demonstrator of Therapeutics, Jefferson Medical College, Philadelphia. Second edition, revised and enlarged. Octavo, 362 pages, illustrated. Philadelphia and London: W. B. Saunders & Co., 1901. Bound in flexible leather, $2.00 net.

This work is intended for the student of medicine both during his years of study as an undergraduate and in the early period of his professional career. The volume will also prove of value to the practitioner of many years' standing for purposes of reference. In the revision additions have been made to the chapters on "Prescription Writing" and "Incompatibilities," and references have been introduced in the text to the newer curative sera, organic extracts, synthetic compounds and vegetable drugs. In stating the doses the quantities are expressed in both the apothecaries' and metric systems. To the Appendix, chapters upon Synonyms and Poisons and their antidotes have been added.

As in the former edition, this volume will be a valuable work of reference for the practitioner, full of practical suggestions. To the student such a book is indispensable.

FROM LEA BROTHERS & CO.

A Manual of Surgical Treatment—By W. Watson Cheyne, A.B., M.B., F.R.C.S., Professor of Surgery in the King's College, London; Surgeon to King's College Hospital and The Children's Hospital, Paddington Green, and F. F. Bughard, M.D. and M.S., London, Teacher of Practical Surgery in King's College, London; Surgeon to King's College Hospital, Paddington Green. In seven volumes. Vol. I embraces "The Treatment of General Surgical Diseases, including Inflammation, Suppuration, Ulceration, Gangrene Wounds and their Complications, Infectious Diseases and Tumors, and the Administration of Anesthetics," by Dr. Silk. Cloth binding, 280 pages, 66 illustrations. Price $3. Vol. II covers the Treatment of the Surgical Affections of the Tissues, including the Skin and Subcutaneous Tissue, the Nails and Lymphatic Vessels and Glands, the Fascias, Bursae, Muscles, Tendons and Tendon Sheaths, Nerves, Veins and Arteries, and Deformities. Cloth

Binding, 375 pages, with 91 illustrations. Price, $4.00. Lea Brothers & Co., Philadelphia and New York, 1901.

The subject of surgery covers such a widely diversified branch of medicine that any work attempting to deal with it in an exhaustive manner must necessarily be large and unwieldly and suitable only for purposes of reference, or for those who devote their whole time and attention to this study. The authors, realizing the comprehensiveness of such large works, have thought it wise to prepare in a series of manuals containing the literature of the subject in text-books of convenient size, each covering certain branches of the subject.

In Volume I (one) the first four chapters, embracing 81 pages, are devoted to "Inflammation," "Suppuration," "Ulceration" and "Gangrene," giving pathology, symptoms, prognosis and treatment of each in detail. Chapter V considers Anesthetics and General Anesthesia. This is a well written chapter from the pen of Dr. J. Fredrich Silk. The next five chapters are devoted to Wounds—incised, punctured, contused, lacerated and poisoned—their modes of healing and the infective diseases of wounds. Following next is a chapter on Cicatrices, cluloid, controlling, painful and adherent cicatrix. In Chapters XII and XIII will be found the subjects of Syphilis, Chancre and Chancroid. The next two chapters cover the subjects of Tumors and Tuberculosis.

Volume II begins with seven chapters on Deformities affecting fingers and toes, flat-foot, club-foot, curved fibula and tibia, genu-valgum, varum, recurvatum and coxa vara and congenital dislocation of the hip. The remaining thirteen chapters are devoted to "The Surgical Affections of the Tissues," including blisters, corns, warts, and tuberculous affections, surgical affections of the nails, lymphatic vessels and glands, fasciæ, bursæ and muscles, tendons and tendon sheaths, nerves, veins and arteries, and the closing chapter considers the surgical treatment of special aneurysms.

These two volumes are of special interest to the surgeon and general practitioner. The descriptions of the surgical treatment of the diseases and injuries to the parts under consideration in these two volumes are clearly and plainly written, with a profusion of well-drawn illustrations to assist the text. This manual of seven volumes forms a most complete library of *Surgical Treatment*, prepared by authors each eminent in his field. Each volume has a splendid index.

Simon's Manual of Chemistry.—A Guide to Lectures and Laboratory Work for Beginners in Chemistry, Especially Adapted for Students of Medicine, Pharmacy and Dentistry. By W. Simon, Ph.D., M.D., Professor of Chemistry in the College of Physicians and Surgeons of Baltimore, in the Maryland College of Pharmacy and in the Baltimore College of Dental Surgery. Seventh Edition. Thoroughly revised and much enlarged. In one octavo

volume of 613 pages, with 66 engravings, one colored spectra plate and eight colored plates representing 64 of the most important chemical reactions. Cloth, $3.00 net. Lea Brothers & Co., Publishers, Philadelphia and New York. 1901.

The call for this—the seventh edition—has afforded the author an opportunity to incorporate, as far as practicable, the many important of the latest results in scientific progress, and at the same time Dr. Simon has taken occasion to comply with the requests of many teachers—to present more fully than heretofore—the chapters on *Clinical Physics* and on *Physiological Chemistry.*

As heretofore, the work is divided into seven parts. The author commences by giving the fundamental principles briefly, so as to lay the foundation necessary for the thorough understanding of chemical phenomena. The first part, treating of Chemical Physics, has been largely rewritten and much new matter added. Electrolysis and the Atonic Theory are briefly considered from a modern standpoint, and a colored plate, giving the spectra of a number of substances, has been added.

Part second treats of the Principles of Chemistry. The author clearly describing the anatomic constitution of matter.

Parts three and four are devoted to the non-metalic and metalic elements and their compounds.

Part five is devoted to Analytical Chemistry, and will serve the student as a guide in his laboratory work. Quantitative methods are chiefly considered, but a chapter is added giving all official methods for valumetric determinations.

Part six is devoted to Organic Chemistry, giving briefly but yet sufficiently clear to enable the student to grasp a knowledge of the bodies which are most important in medical science.

The seventh and last section, giving the principal facts of Physiological Chemistry, was prepared for the benefit of the medical student in particular. Much new matter has been added to these chapters, and special care has been taken to mention the most modern methods for chemical examination in clinical diagnosis.

As an aid to laboratory work, a number of experiments have been added which may readily be performed by students with a comparatively small outfit of chemical apparatus.

The expert analysist will consult the admirably gotten up test colors, which cannot fail to be very valuable to the student and enhances the value of the work, making it particularly suited for self-instruction.

In examining this work from a critic's standpoint, it seems to us that the author has done and said everything that should have been done and omitted only those things that are irrelevant. This has been done, keeping within reasonable page limits and without sacrificing a liberal and judicious distribution of matter. Few works of its size, or even larger, will meet the demands of so varied a class of students, either as a text-book or one of reference, and we predict it will continue in its popularity through many more editions.

Progressive Medicine, Vol. iii, September, 1901.—A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, A.M., M. D., Professor of Therapeutics and Materia Medica in Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth; 416 pages. Price, $10.00 per year. Lea Brothers & Co., Publishers, Philadelphia and New York.

The third volume of the 1901 series of Progressive Medicine well maintains the standard of practicality and interest which has marked the publication from its beginning.

This volume will prove of more than usual value to the general practitioner. Dr. Ewart presents the most recent views on pneumonia, tuberculosis, and other conditions of the respiratory tract. The advances in the treatment of pneumonia and phthisis have been so remarkable in the past year that this section will be read with especial interest. The surgical treatment of various affections of the lungs and pleura has been extended of late in a manner which opens a field which gives promise of great benefit to sufferers from these conditions. In the consideration of the diseases of the heart and blood vessels Dr. Ewart discusses very fully the recently exploited forms of treatment by baths medicated and otherwise.

The section on Dermatology and Syphilis, by Dr. Gottheil, besides giving the most advanced information concerning the ordinary problems presented in those subjects, discusses very fully the new and important subject of Photo-therapy and the Finsen Light treatment: Blastomycetic Dermatitis and Inoculation Tuberculosis.

In the section on diseases of the nervous system Dr. Spiller devotes a large portion of his space to an able discussion of tumors and abscesses of the brain. He also describes the commoner forms of the peculiar nervous diseases which are sometimes so puzzling to those who have not made a special study of neurology.

In Obstetrics Dr. Norris discusses very fully the treatment of Eclampsia. He gives also the most recent views on the subject of Symphysiotomy and discusses the large number of recently reported cases in which lumbar anæsthesia has been employed in obstetric practice.

The contents of Progressive Medicine are not merely abstracts of articles, but represent the views of experts in their several departments on the world's work in every subject. All of the contributors are men of the greatest professional eminence and the various chapters, bear evidence to the thorough command of the different subjects of which they treat. To those unable to get away from a busy practice to do post-graduate study, Progressive Medicine becomes a necessity.

Caspari's Pharmacy—A Treatise on Pharmacy for Students and Pharmacists. By Charles Caspari, Jr., Ph.G., Professor of the Theory and Practice of Pharmacy in the Maryland College of

Pharmacy. New (2d) edition, revised and enlarged. In one octavo volume of 774 pages, with 301 engravings and a plate of portraits of the leaders in pharmacy during the last half of the 19th century. Cloth, $4.25 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1901.

Students, professors and practitioners of pharmacy have evidently approved of Caspari's book, and have afforded the author an opportunity which he has thoroughly utilized to revise it to the latest date. The author's experience of twenty-five years as a pharmacist and teacher has qualified him to combine with his own knowledge the results of the vast labors of investigators in America and Europe. Thus in a single comprehensive volume he presents the body of information which to-day constitutes the science and art of pharmacy in its advanced state. It is homogeneous, uniform, clear and accurate. Students can learn and teachers instruct from it with economy in time and effort. Pharmacists will find it a most useful guide in the data and operations of their calling and in the interpretation of the Pharmacopœia.

The chapters on Specific Gravity, Solutions, Compressed Tablets, Ointments and Plasters and Suppositories have been largely rewritten. A new chapter has been added on Prescriptions, and one on Assay of Alkaloidal Drugs.

The author, whose contact with students made him aware of their exact wants, has succeeded in placing in their hands a book the usefulness and value of which become apparent the moment that its plan and detail are examined. His work is admirable. The book is full of new, clean, sharp illustrations, which tell the story frequently at a glance. The index is full and accurate. The new edition has been carefully revised to date, and shows an enlargement of about 50 pages and an increase of 20 illustrations.

FROM D. APPLETON & CO.

A Practical Treatise on Diseases of the Skin—By J. V. Shoemaker, M.D., LL.D., Professor of Skin and Venerial Diseases in the Medico-Chirurgical College and Hospital, Philadelphia; Physician to the Philadelphia Hospital for Diseases of the Skin, etc. Fourth Edition, Revised and Enlarged, with 2 Chromogravure Plates and 26 other illustrations. 892 pages. Cloth binding. Price,——. D. Appleton & Co., New York City. 1901.

The name of Shoemaker is well known to the profession; his textbooks on Materia Medica and Therapeutics has gone through several editions, which speaks for his opinions as a therapeutist, and the work before us is deserving of special claims in the relative effects and values of numerous agents tested by the author during his many long years of clinical experience in the treatment of skin diseases are clearly expressed and add great value to the work.

To give a more explicit idea of the scope of the work under consideration, we ask your attention to the contents:

Part First, General Considerations, include: Anatomy of the Skin, Sweat and Sebacious Glands, Hair and Hair Flolicles, Muscles, Blood Vessels, Lymphatics and Nerves of the Skin, Physiology and Function of the Skiu, Absorption, Secretion and Excretion.

Part Second.—Here the author goes into the classification of skin diseases:

Class I. Disorders of Secretion and Excretion. Class II. Hyperæmias of the Skin. Class III. Hemorrhages of the Skin. Class IV. Exudations of the Skin. Class V. Hypertrophies of the Skin. Class VI. Atrophies of the Skin. Class VII. Tumors of the Skin. Class VIII. Neuroses of the Skin. Class IX. Parasites of the Skin.

The author describes briefly the most efficient bactericides and their influence in various morbid conditions of the skin, and the details of their applications are given in the consideration of the various cutaneous affections in which they are applicable. Special attention is given to the consideration of electricity in many diseases of the skin; the effect of diet is also given attention in the production and treatment of skin diseases. The author alludes to the improved methods in the treatment of the eruptive fevers; the chapter on syphilis has received many additions; the latest in hypodermic medication is not overlooked by the author's careful eye. A section describes the various changes which the nails undergo in consequence of local or general disease; the latest literature on leprosy has been surveyed; the constitutional effects of carcinoma are briefly described; the most recent literature on cancer and its etiology receives due criticism; the pathology of lupus vulgaris and its relation to other forms of tuberculosis receives due attention.

The revision of this (the fourth) edition has been modified in accordance with the advances of the past three years in the sphere of dermatology; the literature has been reviewed especially in regard to additions to the general fund of knowledge relative to etiology, pathology, pathogenisis, diagnosis and treatment; many interesting facts have been recorded which completely alter or change our conceptions of certain cutaneous diseases.

The rapid progress in dermatology has lead to a more thorough comprehension of disease processes; the assiduous observations of special workers have resulted in the recognition of several diseases which had previously been overlooked.

Taken as a whole, it is a well and ably written scientific work, and can be recommended as a scholarly treatise on the subject, and one will have to look with care to find its equal in any language. It is a book every practitioner should have.

FROM P. BLAKISTON'S SON & CO.

Materia Medica, Pharmacy, Pharmacology and Therapeutics.—By W. Hale White, M.D., F.R.C.P., Physician to and Lecturer on Medicine at Guy's Hospital, London; Author of a Text-Book of

General Therapeutics. Edited by Reynold W. Wilcox, M.A., M. D., LL.D., Professor of Medicine and Therapeutics at the New York Post-Graduate Medical School and Attending Physician to the Hospital; Visiting Physician to St. Mark's Hospital; President of the American Therapeutic Society; Fellow of the American Academy of Medicine, etc. Fifth American Edition, thoroughly revised. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia. 1901. Price, $3.00 net.

This is a most excellent, comprehensive, complete, yet condensed work, containing in a small volume the common and accepted facts essential to the student and practitioner. This book has a very practical arrangement. The drugs of the mineral kingdom, the vegetable kingdom and the animal kingdom are arranged in groups, showing their uses and in an appendix classified according to their source. The brevity of expression throughout the work is remarkable, yet so practicable and clear that the dry subject of materia medica is made very attractive. The editor's additions are distinguished from the text by the use of brackets, which are profusely scattered throughout the volume; the book has been transformed into a work of the highest practical value, almost every drug in use, even down to the most recent, having received due attention. The best of all the more recent developments in therapeutics have been incorporated, and Dr. Wilcox's labors have been performed with excellent judgment and skill. Each of the non-pharmacopeal drugs are placed among drugs whose action they most resemble, but it is stated that they are not official; evidently no pains have been spared to make it absolutely accurate. Another notable feature, and a good one, is that the volume abounds in italicized notes, calling attention to errors which experience has shown to be likely to arise in a work of this kind. Taken as a whole, we recommend this volume in point of excellent arrangement, accuracy, conciseness, practical usefulness and thorough completeness as a text-book for students and practitioners. We know of none better.

FROM THE VIR PUBLISHING CO.

What a Young Wife Ought to Know—By Mrs. Emma F. Angel Drake, M.D. Price $1.00. Vir Publishing Co., 1134 Real Estate Trust Building, Philadelphia, Pa.

The series of books to which this belongs is one of the best signs of the age. There is a need for the book, and it does that for which it is intended better than anything of the kind we have ever read. Any young woman thoroughly acquainted with the subjects taught in this little volume is competent to undertake the responsibility of married life. Chapters on invalidism, dress, the choice of a husband, trousseau and wedding, marital relations, preparations for motherhood, antenatal infanticide, ailments of pregnancy, development of the fœtus, baby's wardrobe, care of the baby, etc., etc., are instructive and contain valuable information.

FROM THE ABBEY PRESS.

A Priest and a Woman.—By Landis Ayr, Author of "The Bunne-Laurel Marriage." 268 pages. Cloth bindings. $1.00. The Abbey Press, 114 Fifth Avenue, New York City, London and Montreal.

The *motive* of this book is *Celibacy of the Clergy*, which is ingeniously presented and advocated by entertaining experiences and conversions in an Episcopal parish. The young rector, vowed to celibacy, is thrown much in the society of a beautiful young woman, who seeks him for counsel and spiritual support, her life being hedged by most unhappy conditions. A college mate and intimate friend of the priest is ardently in love with the same young woman, and maintains a close pursuit throughout the story. His arguments with the priest reveal the latter's views. The story contains an element of both comedy and tragedy, while there is also a clever depiction of varied character, among which figures "the girl with the opossum smile." A few selections taken at random will serve to illustrate a few of the prominent characters of the book. It is an absorbing book from start to finish, dramatic, logical and clean.

"Dominie, say! I've been a-layin' here to-day an' thinkin' over an' over, what a damn fool a man is to think there hain't no Gawd!"

Miriam, like most people, carried a strain of worldliness through her religion, to which it was as closely related as are the warp and woof of a silken fabric.

"What is my devotion worth if it entail no sacrifice? I must pursue my duty as I see it. I cannot live a lie."

Some clergymen pursue with ardor and exhilaration the drumming and beating up the lairs of the wicked. It almost appears that they grasp this outlet for their natural belligerency, and joy in an opportunity to tread forbidden ground and witness unholy things under a professed zeal of correction.

FROM WILLIAM WOOD & CO.

Manual of the Diseases of the Eye, for Students and General Practitioners (with 275 original illustrations, including 36 colored plates). By Charles H. May, M.D., Chief of Clinic and Instructor in Ophthalmology, Eye Department, College of Physicians and Surgeons; Medical Department, Columbia University, New York. Second Edition, Revised. New York: William Wood & Co. 1900. pp. 13–406.

The exhaustion of the first edition of this work within eight months speaks well of its favorable reception by the profession. In this revision the author has made a number of alterations, more particularly in paragraphs on *acute catarrhal conjunctivitis*, and in the chapter on Ocular Therapeutics. Many valuable illustrations and colored plates are added, all of which enhance the value of the book.

This volume is intended for the student and general practitioner of medicine, and as stated in the preface "is not recommended as a

substitute for the larger works, but as a means of supplying a foundation to which further knowledge may be added by reference to more extensive and comprehensive text-books." It is divided into 26 chapters and has a good index. The illustrations are good and the colored plates are better than those usually found in small works. The volume is up to date, and terse and complete; it is by far the best manual that we have seen in recent years. All points are touched upon—the ophthalmometer, decentering lenses and the various new forms of operation on the lids. It will undoubtedly prove very useful for those for whom it was intended. We commend it as a useful volume.

FROM E. KOECKERT.

Nursing: Its Principles and Practice—By Isabel Adams Hampton, Graduate of the New York Training School for Nurses attached to Bellevue Hospital; Superintendent of Nurses and Principal of the Training School for Nurses, Johns Hopkins Hospital, Baltimore, Md.; Late Superintendent of Nurses, Illinois Training School for Nurses, Chicago, Ill. In one very handsome volume of 512 pages, size 5x7½, profusely illustrated. Price, cloth, $2.00, net. E. Koeckert, Publisher, 702 Rose Building, Cleveland, Ohio.

The brief synopsis apperded will give some idea of the scope of the work:

Training School Organization—Hospital Wards—Supplies—Beds—Hygiene of the Sick Room—Care of New Patients—Baths—Disinfectants—Bacteriological Notes—Enemata—Temperature—External Applications—Counter-irritants—Medicines and their Administration—Surgical Nursing—Gynecology—Surgical Operating Rooms—Hemorrhages—Bandages—Medical Emergencies—Diet—Anesthetics—Observation of Symptoms—Obstetrics—Pregnancy—Nursing of Children—Examination of Urine—Infectious Diseases, Fevers, etc.—Notes on Medical Diseases—Vocabulary.

Seldom have we perused a book upon the subject that has given us so much pleasure as the one before us. No superintendent of a training school should neglect to read it at least once; head nurses may refer to it more frequently, while junior nurses will profit much by a careful study of it. We would strongly urge upon the members of our own profession the need of a book like this, for it will enable each of us to became a *training school* in himself.

FROM R. R. DONNELLY & SONS CO.

Proceedings of the Ninth Annual Meeting of the Association of Military Surgeons of the United States, held at New York City, June, 1900. Edited by Publication Committee. Published by R. R. Donnelly & Sons Co., Chicago, Ill.

This is an 8vo. volume of nearly 500 pages and contains the minutes of the last meeting, together with 40 papers by as many members on subjects dealing with military surgery, covering varied sub-

jects. Among others we note, "The Hygiene of Camp," "The Purification of Water," "Care of Wounded on Shipboard," "Contagious Diseases Among T roops," "Gunshot Wounds in Military Surgery," "Mortality of War Wounds," etc. These and other papers are valuable contributions to the science of surgery and are well worth reading.

FROM THE JNO. L. MURPHY PUBLISHING CO.

Twenty-fourth Annual Report of the State Board of Health of the State of New Jersey and Report of the Bureau of Vital Statistics, 1900. Trenton, N. J.: The Jno. L. Murphy Publishing Co. 1901.

An excellent volume filled with very interesting matter relating to public health and vital statistics. We congratulate the New Jersey State Board of Health on producing so excellent a book.

AUSTRALIAN BITTER BARK IN INFLUENZA.—The above plant, also known as fever bark (botanical name, Alstonia constricta), belongs to the natural order Apocynaceæ and is a native of Queensland and New South Wales. It contains several alkaloids, the principal of which is alstonine. The bark is intensely bitter, and is used by some brewers to add bitterness to their ales. The natives use it as a general tonic; in its properties it resembles both quinine and strychnine. Dr. J. Gordon Sharp (Lancet, No. 4041) has employed the tincture for the past eighteen months as a general tonic, more particularly in influenza. He starts with it as soon as the feverish stage is over and gives from 5 to 10 min. in chloroform water four times a day, preferably shortly before meals. From results obtained he recommends it as valuable agent in the treatment of influenza. The dose of the tincture is given in the Addendum to the British Pharmacopœia as 30 to 60 min.—*Merck's Archives.*

DIPHTHERIA.—With the exception of cleansing sprays of 6 per cent. boric acid solution, listerine and water, or salt and water, local applications are most unnecessary and therefore bad, writes Chas. C. Gidney (Pediatrics, March 15, 1901). In mild cases seen early, 600 to 1,000 units of antitoxin injected between the scapulæ or into the cellular tissue of abdomen or thigh will suffice. In cases, however, of extensive membrane 4,000 to 6,000 units should be injected at once, and perhaps an additional 2,000 to 3,000 units in the next day or two. Overdoses are harmless, as much as 12,000 units having been repeatedly used in the Brisbane Children's Hospital. When the pulse indicates it strychnine, digitalis or alcohol may be of service.

PROGRESS
—OF—
MEDICAL SCIENCE.

THERAPEUTICS

UNDER THE MANAGEMENT OF
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THE THERAPEUTIC USES OF TRI-CHLOR-TERTIARY-BUTYL-ALCOHOL.—Houghton (Med. News, Aug. 3, 1901) for the last two years has been making a careful study of this drug. It is a condensation product of chloroform and acetone; it occurs in small white crystals, volatile, camphoraceous odor and taste; it is only sparingly soluble in water. The therapeutic action of it is antiseptic, local anesthetic, hypnotic and, when it is pushed in large doses, it becomes a general anesthetic. If, however, a small dose be given before a general anesthetic is administered, it will be found that less chloroform or ether will be required and the after symptoms will not be so severe. When a solution of this drug in 15% alcohol is applied to the mucous membranes or injected hypodermically, it will produce anesthesia, although this last method has been followed by slough in some cases. When it is used hypodermically it is best to use an aqueous or normal salt solution. In cases of foreign bodies in the eyes, a few drops of an aqueous solution of this drug with suprarenal capsule affords great comfort and relieves the congested membranes. In this instance it acts as an antiseptic and anesthetic, and also as preservation to the solution. In cases of gastric carcinoma it acts well as a local anesthetic, also in other forms of gastric irritation, where its antiseptic action is again valuable. In minor surgery these two actions of this drug will prove useful in local dressings in painful contusions and lacerations. As an hypnotic in doses of 15 to 60 grs., it will be found to be perfectly safe and reliable, with no after effects, such as are common to this class. In one case where 120 grs. were taken the patient slept over five days and then awoke. Another received 165 grs. inside of 14 hours, which was followed by general anesthesia for twenty-four hours and drowsiness for four more; neither suffered any other inconvenience.—*Int. Med. Mag.*

THE VALUE OF VERATRUM VIRIDE IN PUERPERAL ECLAMPSIA.—(Ther. Gaz., Aug. 15, 1901.) This journal has undertaken to gather the opinion of different physicians upon the use of this important drug in eclampsia. Edgar does not adopt any given rule, but thinks that this drug is second only to chloroform in controlling the convulsions and, as a rule, he uses it in conjunction with other treatment (emp-

tying the uterus, free elimination, etc.) in doses of 10-20 m. hypodermically until the pulse continues to range about 60. It is of value in those cases where temporizing is necessary. He has never been able to satisfy himself as to the effect upon the fetus. Norris also finds it of value in certain cases. He thinks it is best given in small doses and repeated, 5 m. hypodermically every 15 minutes. The pulse should be reduced to about 70-80; this usually requires about 30 m. in the 24 hours. Hirst and Davis also find it of value and administer it about the same. Boyd believes its value is doubtful, and finds it to be a powerful depressant. Wilson places no dependence upon it. Williams has had no experience with its use, and has never been convinced of its value. Reynolds expresses about the same opinion.—*Int. Med. Mag.*

The Treatment of Scarlet Fever.—Aviragnet (Gaz. Med. Belge., 1901) finds that some oily substance with some antiseptic applied to the nose and throat will give considerable comfort. Either methol and boric acid in petrolatum or resorcin may be used as the antiseptic. Another preparation which he has found valuable is resorcin in sterilized olive oil, with a few drops of essence of mint.—*Int. Med. Mag.*

Camphor in Ulcers of the Leg.—Dr. Walbaum (Merck's Archives) speaks warmly in favor of camphor in the treatment of leg ulcers. He uses the spirit of camphor, while others prefer an ointment. The author proceeds as follows: The leg having been thoroughly scrubbed with green soap, a moist dressing of solution of aluminum acetate is applied and renewed daily until the secretion is diminished and has become odorless. Then a wet dressing is applied every other day, using spirit of camphor instead of water. When the dressing is being changed the ulcer is cleansed with some antiseptic solution, like carbolic acid. The results have been very encouraging. Out of about forty cases not a single one could resist the treatment, which often lasted less than three weeks.

Sodium Cacodylate in Tuberculous Peritonitis.—Dr. Scmitt (Merck's Archives) has treated a case of tuberculous peritonitis with injections of sodium cacodylate and enemata of saturated solution of carbon disulphide. The patient recovered. The details of treatment are as follows: (1) Every morning an injection of 1 grn. of sodium cacodylate. (2) Every day an enema of 1 dr. of carbon disulphide, disolved in 1 pint of distilled water. (3) Forced nutritrition.

Sodium cacodylate brought about an increased appetite and general tone, while the enemata disinfected the intestines and restored their elasticity. In the bowels a certain quantity of the carbon sulphide is volatilized and distends the intestine walls by its pressure. This result would seem to suggest the employment of the remedy in intestinal obstruction.

Ranunculus Ficaria in Hemorrhoids.—Sir James Sawyer (Merck's Archives) states that he found an ointment of ranunculus ficaria a very efficacious application in hemorrhoids. This plant, which is also known under the names ficaria verna, lesser celandine and pilewort, is a well-known perennial plant with bright yellow star-like blossoms and shining kidney-shaped or heart-shaped leaves. The ointment is prepared as follows: The plant is collected in the spring at the time of blooming, and cut—an entire plant—into small sections, and put into lard in the proportion of about 1 part of the plant to 3 parts of lard. It is then macerated in the melted lard, which is kept at a temperature of about 100° F., for twenty-four hours. The mixture is then strongly expressed and the oily infusion is strained and allowed to cool. When properly prepared—the temperature should not be too high—the ointment should be of a nice, bright olive-green color. It is to be applied to the hemorrhoidal part twice daily, by the aid of the finger, preferably immediately after an evacuation.

Quinine as a Prophylactic to Influenza.—Dr. W. Habgood (Merck's Archives) states that quinine in small doses is a sure prophylactic against influenza. He himself had been very subject to it and had had five attacks in four years. When the next epidemic was prevalent, he began to take 2 grn. of quinine every morning with his breakfast, and has done so each succeeding period when the disease was prevalent. As a result, he has never had another attack. He obtained the same favorable results in his patients who had on previous occasions suffered with influenza. The quinine acted as an effectual prophylactic.

Methylene Blue in Opthalmology.—Jacqueau (Merck's Archives) has found methylene blue to be an invaluable antiseptic in certain ocular lesions. The drug is generally indicated whenever an infection of the eyeball is present or threatened. Undoubtedly its antiseptic powers are very efficient, but in order to obtain the full benefit the infected surface must be impregnated and colored blue by the reagent. It is especially of value in superficial corneal affections. Instilled into the eye, the solution spreads over the surface without leaving a trace on the healthy portions, and colors the areas devoid of epithelium. Minute ulcers may now be discovered for the first time by the blue coloring. The strength of the eye-wash varies from 1:1,000 to 1:500 and much stronger. Two instillations daily will suffice on the average, to be followed by an occlusive dressing. Rapid improvement and often complete cure result.

The diverse corneal inflammations of infants readily yield to this method of treatment.

In the various forms of conjunctivitis, methylene blue exercises a much less constant action. Excellent results are, however, sometimes seen in catarrhal conjunction. In cases of deep inflammation, of suppurative iritis, parenchymatous keratitis, etc., the instillations

can have no effect. The solutions should be absolutely neutral, since alkalies diminish the coloring, and thus the antiseptic value of methylene blue, while acids also affect the remedy.

A solution of 1:700 may prescribed as follows: Medicinal methylene blue, 1-6 grn.; neutral distilled water, 2 dr.

Pyoktanin in Cancrum Oris.—Dr. Achwlediani (Merck's Archives) reports a case of cancrum oris, in a boy of nine years, following scarlet fever. The parents first noticed an offensive odor from the mouth of the child and soon the characteristic ulceration appeared on the cheek. Simultaneously scarlatinal nephritis was present. The treatment of the noma consisted at first in cauterizing the gangrenous parts and the application of a 20-per-cent. zinc-chloride dressing. Internally stimulants were ordered. These measures failed to avert the disease, the destructive process continuing. Pyoktanin was now employed in 1-per-cent. solution, applied on cotton tampons, and the application repeated hourly at first, every two hours later on. The results were startling, the ulcerations healing steadily and kindly.

The author believes that in pyoktanin we possess a powerful and reliable remedy against cancrum oris.

A New Method of Controlling Morphine Sickness, and the Nausea Incident to Chloroform Anesthesia.—The Kansas City Medical Record for July, 1901, has in it an article by Kuder in which he tells us that he has recently made a test of chloretone as a gastric sedative in twenty-five cases in which it was necessary to administer morphine, either internally or hypodermically, with results that were indeed surprising. Ten grains of the drug, in five-grain tablets, were given directly after the morphine had been taken. Not one of these twenty-five patients, either old or young, experienced the least gastric disturbance—on the contrary, they expressed themselves as feeling in excellent condition.

Encouraged by the results of this experiment he essayed to make a further trial of chloretone as a preventive of the nausea so often occurring during or after general anesthesia. Accordingly, in a series of seven cases, three tablets (fifteen grains) of chloretone were given before administering the anesthetic. Not one of these patients vomited during or after the inhalation of the chloroform, which was the anesthetic chosen. They were slightly drowsy, but evidenced no gastric disturbance. In one case in which it was necessary to give chloroform directly after the patient had eaten a full meal, chloretone was used as a preventive of vomiting with perfect success.

The experience leads Dr. Kuder to feel that in this role alone chloretone will prove a blessing to the patient and a godsend to the operator, and that the profession may have the same happy results. —*Therapeutic Gazette.*

INTERNAL MEDICINE AND NEUROLOGY.

UNDER THE CHARGE OF

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THE MEDICAL TREATMENT DURING THE ADOLESCENT PERIOD.—By Edwin Rosenthal, M.D., Philadelphia, Chairman of the Section on Diseases of Children of the American Medical Association; Pediatrist to the Franklin Free Dispensary, etc.

The adolescent period in the female may be said to be as critical as the menopause, and by reason of the methods of our education may be said to be one of the best known conditions universally recognized, and, as such, the common property, not only of the profession, but also of the laity. For this reason it is not an uncommon fact to witness, not only the diagnosis of this condition being made by the "officious meddler," but also treatment. And it is very often, when such treatments have failed, that the patient is brought to the doctor. In such instances great care and discernment must be the weapons of the doctor, for it will be noted that recourse to all the old well-known remedies had been applied before further advice is sought. The commonest symptom that presents itself is the one that refers to the menstruation. And it is in all probability that this disordered condition is the most conspicuous factor that needs correction.

Two classes of cases are most numerous and may be be divided into: 1st. That class that has never menstruated, and 2d. That class, that may have begun, shown a very slight discharge at infrequent intervals—once in six or nine months—but which has never grown to an extent at any time that may be termed a normal flood. The history of these cases are very generally of the same character, and may be briefly summarized:

DIGESTIVE DISORDERS, HEADACHES, LANGUOR,

flushing, sensations of fulness in the abdomen, disturbed or unnatural sleep, or sleepy conditions during the daytime; often some cutaneous affection—acne the most common. Whilst the symptoms may be present in some, frequently only part of them may be present in certain cases, as the skin affection. During the period that should be termed the "menstrual" period the symptoms are generally aggravated. If the "acne" be present at this time, a fresh crop of pimples appear, and thus can be noted other symptoms.

In all cases of menstrual disorders in the young, the cause must be sought for, and if found corrected. This of certainty directs the treatment. In cases where the menstruation has never appeared, it should always be a certain rule to have the sufferer examined by the mother. In quite a number of instances anatomical reasons have shown the reason. In four cases an "impervious hymen" was the cause. In two cases the "uterus" became the receptacle and contained the result of numerous menstruations, becoming enlarged even above the pubic bones; the cervix being impervious. In several instances there was an entire absence of the uterus and ovaries. This I noted in two cases, both married, and were examined for the reason. In one case, an otherwise well-developed young woman, age 21, there was an absence of a vagina. Such cases as thus enumerated, nothing can be done in the line of medication, but judicious surgical procedures may in indicated cases (impervious hymen or cervix) make a cure. Where, however, no necessary organs exist, nothing can be done except such rules as the regulation of the bowels, etc., at stated intervals, give much relief to the frequently present nervous symptoms. Where, however, no anatomical reasons exist, and the patient suffers from suppression of the menstruation, entire or in part, much can be done to aid a cure.

The question of age frequently enters as an answer to results. We have with us such a conglomeration of different nationalities, that the "age" question is a very vital one. Inasmuch, as frequently the treatment of menstrual disorders may be wrongly applied, as an example: To attempt treatment of a girl of 13 or 14 years, when her mother only began menstruation at 12 years. Experience has taught me that girls born in warmer countries, or descending from such parentage, begin to menstruate much earlier than those of colder climes. For instance. girls from Italy or Cuba begin at 12 or 13, where those from Norway or Sweden begin at 15 or 16 years. Again, in races I have seen some surprising differences. The colored race have presented a girl of 10 years, and often I have seen girls of Russian-Jewish parentage begin at 10 or 11 years. So that the question of age should always enter into the treatment.

ANÆMIA AND CHLOROSIS.

Whilst the most common symptoms of disordered menstruation is "anæmia" and as the better known "chlorosis," or vulgarly "green-sickness," its absence need not preclude the use of the most common of all remedies—iron. Anæmia alone may be the cause of suppressed menstruation, and while its presence may be looked upon as a certain cause, its treatment is as essential for the appearance of the menstruation as it should be for the general health of the patient. That anæmia in girls is most frequently found at this time leads to the common belief that anæmia, green-sickness, or whatever name this blood condition may receive, is the chief factor in menstrual disorders.

The treatment of such conditions are numerous, and should divide itself into the causative factor first, and then, after this has been relieved, to the specific symptom. In other words, it will be wrong to attempt by the use of specific remedies the appearance of the menstruation, if the physical condition of the patient is such that should not permit it.

Besides the condition of the blood as a cause of suppressed menstruation, other well-known conditions equally play a prominent part. Even if the patient should suffer from such diseases (tuberculosis as an example) the presence of a menstrual flow has such an encouraging influence upon the mind of the sufferer, that some attempt should be made, and as the method pursued by myself for many years can only be of benefit, such conditions are not contraindications for its use.

Iron is the chief remedy in menstrual disorders, and may be given at all times—before, after and during the flow. A certain time of the life of the patient should be set apart for active and specific treatment. The time chosen should be when the symptoms are most aggravated. The days, one, two or three, should be set apart, and our treatment should always culminate to this period. If we fail at the one, then we should begin again, and pursue our treatment until the second period, when the specific method should again be applied, and thus on. Even if failure should mar the first, second, or even the fifth period, the menstruation will appear, if the treatment be applied in a rational way.

Between the periods I always order the use of iron in three or four daily doses. I have used all forms and varieties, from the tincture of the chloride, which is so often objected to, to the different kinds the Pharmacopœia presents, in pill form, as the Blaud pill, simple or modified. My experience brings me back to Gude's Pepto-Mangan. Gude's Pepto-Mangan is now the most common in use, and as there are so very many similar preparations in the apothecaries that care should be exercised in obtaining the genuine. I have a simple way of distinction. I always order Gude's Pepto-Mangan given with milk. If the mixture is clean, uncoagulated and palatable, then I know my patient has received what I ordered. For a further distinction, I invariably place on my prescription the name "Gude." My reasons are these: So very many so-called similar products are on the market that are inferior, and in a measure do not act in a manner you wish, clinically as well as physically. For my own defense, as I have been so frequently disappointed, I detect the fraud of substitution by mixing with liquids, especially milk; the "Gude" preparation always gives the palatable mixture.

I order of this preparation a teaspoonful in a wineglassful of milk every three or four hours, depending upon the patient's condition. If she be very anæmic, and with this very nervous, I place her upon the milk diet, and by the addition of Gude's Pepto-Mangan I reach my object, giving the food as well as the medicine. I increase the

dose until a tablespoonful, three or four times daily. This treatment is kept up, and even continued through each period, until the purpose is obtained, perfect health, as regards not only the menstrual flow, but also the general physical condition.

Medical treatment is never sufficient in these class of cases, and failure is apt to result if no attention is given to other conditions; the very common class, the school girl who desires to reach the head of her class, or who studies for a prize, or the like. Take the following case:

HYSTERIA.

Case I.—E. L., age 17 years; large in growth, over 5 feet 8 inches; reddish hair. A student of the Girls' Normal School, preparing for the teachers' certificate, which required two more years of study after the graduation. Complains of constipation and headache. Has acne on each cheek. Has occasional headache, and has an occasional attack of "nervousness," crying, etc. Her menstruation is scant, very irregular, and when it does appear, not more than one day, or probably one-half the next. Appetite erratic, though spoilt by the method of eating, as buns or cake or pie for lunch, whilst the breakfast, hurriedly eaten, was only a cup of coffee, or a roll. Her main food was the "supper-dinner," when she was "too tired or too long hungered" to eat. Once or twice I was called to quiet an hysterical attack. In this case the pimples were the bane of the young lady's life, and while she was not anæmic in any sense, I placed her upon the (Gude's) Pepto-Mangan, telling my patient this medicine was for the pimples, and that I left the further treatment in her hands. This with purgative pills of aloin with nux vomica was the whole treatment. Vanity came to my assistance, as my patient desired to be rid of the eruption. Persistent use of the iron was the only medicine used, and whilst the schooling was persisted in, she passed through the period, and eventually recovered.

The second case is one that is too frequently met with, the child of the poor, who is sent too early to the "mill" or "store," and who has never been taught the commonest rules of hygiene; the girl who spends her time in work, and whose only outing, a dance or picnic, is equally as hard work.

Case II.—Age 14 years. Attended school until 12 years and then became a cash-girl in a department store. Rather large for her age. Flabby built, and of a distinct pallor. Complains of obstinate headache, relieved by the so-called bromos; indigestion, languor, sleepy during day-time, and at night a sleep that was heavy, unnatural and disturbed by dreams; at intervals flushing with sensations of chilliness. Menstruation scanty, probably a half of one day, and very light in color. In this case work was a necessity, and even proper food could not be obtained. However, milk was the easiest and cheapest food, and from one to two quarts daily was the constant supply. To this food I added a teaspoonful of the Gude's Pepto-Mangan at each glassful, once every three hours, increasing until a

tablespoonful dose was attained. This, with a purgative pill (the compound rhubarb pill of the Pharmacopœia), was the treatment persisted in through the winter months, and during the following summer months a vacation of two weeks was obtained, and the patient sent to the seashore by one of our charitable institutions. This patient was convinced of the utility of this method of treatment, as I found the following winter the same course was followed with a gratifying result, preventing any loss of time by reason of illness or otherwise.

I have also met with cases that the menstrual period came on correctly at a certain age, and continued so for a year or two, when, for some unknown reason, there was total suppression. There was no history of tubercular disease, nor could I obtain any certain cause. In one case marriage was undertaken as a hope for cure. This patient, aged 18 years, came to me with the following history:

Case III.—Mrs. B.; began menstruation at the age of 13 years; regular intervals until 15 years, when the flow became scanty and scantier until only a half day, and then entirely disappeared. She had not seen a flow for two years. Examination revealed the uterus two inches in length, somewhat anteflexed. The ovaries on each side could be felt, the size of an almond; the tubes could also be felt. The patient had been under the care of many physicians, and had had several operations, even a laparotomy, for the abdominal scar was visible. Nothing had been removed, she assured me, and the examination showed this also. Dilatation of the uterus had been performed, as well as curettement, for what I was not informed. She had also undergone electrical treatment. I treated this patient constantly for six months before a flow of blood was in evidence. My sole treatment was the internal use of the Pepto-Mangan (Gude's) in tablespoonful doses in milk, and the use of a stem pessary for a period of nine months. After this time an examination revealed the uterus two and one-half inches in length, larger in size. The tubes could be felt, and the ovaries on either side somewhat larger. Monthly flows have now been the rule for the last three months. This patient is still under treatment, and whilst the iron is still persisted in, the result of the treatment is uncertain. I am firmly persuaded that many cases can be benefited by a correct application of our remedies, and when applied for a certain purpose.

This last patient appeared hopeless, and at the start I had little hope myself that much could be looked for. It appeared as a case of early menopause. I have seen such cases, with atrophy of the organs. Here, however, this was stopped, and I have still hope of seeing further improvement.

I have seen such good results in the use of Gude's Pepto-Mangan in septic diseases that I have applied it fearlessly in other conditions. None give better promise than those conditions that are coupled with the menstrual flow, especially when seen at the adolescent period.

GENERAL ORTHOPÆDIAC AND GENITO-URINARY SURGERY.

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Deleterious Results Following Operations in Hypochondriasis Performed for the Sake of Mental Impression.—A. Pick, Prague (Phila. Med. Jour., Sept. 21st, 1901). The author protests against operating upon patients suffering from hypochondriacal delusions of having a tumor or an animal in some part of the body. Operation upon these cases usually results in failure to relieve the delusion, and the patient is much worse following the operation. Treatment should be general and directed toward diverting the mind from the part supposed to be affected, while an operation concentrates the mind on the subject and increases the delusion. Several cases are reported showing the deleterious effect of an operation, and are contrasted with other cases in which the delusion has disappeared by disregarding it. G. R. W.

The Early Diagnosis of Carcinoma.—C. A. Powers, Denver (Jour. Am. Med. Ass., Sept. 14, 1901). Dr. Powers calls especial attention to a slender, thread-like bacillus which is found in the stomach in nearly all cases of cancer of that organ. The bacillus is similar to the bacillus butirycus, but it is shorter and less thread-like. It grows upon a jar with 1% glucose, forming on the second day colonies the size of a pin head, white, dryish and almost transparent, looking under the lens like flocculi of wool. The organism is practically absent from the healthy stomach, but when present in a stomach it is found in great quantities. The author found the bacillus in 29 cases in the Strasburg clinic, and in 25 of these cases cancer of the stomach was shown to be present. The bacillus is not pathognomonic of cancer, but of the external stasis of the stomach such as cancer produces. In non-cancerous subjects the bacillus may be present in cases of pyloric stenosis and atony of the stomach.

G. R. W.

Prof. Max Schüller's Views on Malignancy.—J. E. Blake (N. Y. Med. Jour., Sept. 14, 1901). Blake reports the result of the recent work of Prof. Schüller of Bonn on the parasites of carcinoma and sarcoma.

The organism which is always found in these tumors has two forms. One is an ovoid, glistening, light yellow body about as long

as the diameter of four red blood corpuscles. The walls are clear, highly refractive and apparently pierced with pores. They appear singly or in chains joined together by the flat ends. Some have a nucleus, others do not. Besides these oval bodies or capsules there are present a number of spherical bodies, brownish or greenish in color, varying in size from a large coccus to near the size of a capsule. They are covered with minute bristle-like projections or cillia which they retract into the interior through a pore in the capsule. The wall is highly refractive and has a double contour, and from one to four nuclei are present in each sphere. The capsules break up into several spherical bodies which in turn develop into new capsules. The difference between the parasite of carcinoma and sarcoma is not marked, but the sarcoma parasite is of a little lighter color, the spherical bodies are more irregular, and there are always large numbers of minute spherical bodies about the size of a coccus. This latter peculiarity makes the differential diagnosis easy.

The organisms may be examined either in the living or dead condition or in sections. To obtain the parasites alive the tissue must be fresh and not allowed to become cool. Pieces are teased in a warm salt solution and examined on the warm stage in the hanging drop, movement may be seen taking place in the protoplasm and the organisms have a slight independent movement. Dead parasites may be found by teasing a piece of tissue in absolute alcohol and clearing with oil of bergamot or some similar substance and examining in the same oil, or mounting in Canada balsam. Potassium hydrate clears the specimen nicely but the organisms soon degenerates. In sections the parasites may be recognized by clearing with oil of bergamot or 5% potassium hydraulic solution, but are best seen after staining the tissue lightly with hæmatoxyton alum which leaves the parasites unstained. For a differential stain use strong watery solution of thionin for 15 to 30 minutes. Wash in distilled water and remove to ½ per cent. oxalic acid for half a minute. The parasites are colored violet while the tissue is colored blue.

All attempts thus far at cultivating the organisms on an artificial culture medium have resulted in failure, but if a piece is cut from the centre of the tumor without infection, enclosed in a sealed test tube without allowing it to become chilled and the test tube kept in a thermostat at 37 C. for from three to seven days, the organisms will continue to grow and multiply and small sago-like bodies composed of pure culture of the parasites will be seen on the sides of the tube, and the fluid that exudes from the material will be full of the organisms. If pieces of epithelium or scrapings from the lip be placed in the tube they will also act as a culture medium.

When a pure culture of these organisms are injected into a rabbit they produce tumors at the site of the puncture, also metastatic tumors in different parts of the body. In all of these tumors the identical parasite is found.

We thus have an organism which can be grown in pure cultures, which can be readily identified through its peculiar form, color and mode of development, which occurs invariably in tumors, and which produces the same by inoculation. There would therefore seem to be no reasonable doubt that these are the true parasites of cancer. We know nothing of the mode of infection. The extreme sensitiveness of these organisms to cold may explain why the disease is so seldom communicated from one person to another. G. R. W.

Gonococcal Auto-Reinfection of the Urethra.—This disease demands our attention from day to day. There is scarcely a journal but what each issue has an article or an item about gonorrhœa. Fred. C. Valentine, in New England Medical Monthly, submits the following generalization concerning gonorrhœa:

1. That an apparently fresh outbreak of gonorrhœa is not positive of a new infection;
2. That non-discovery of the focus or foci of infection should not deter the practitioner from renewed efforts;
3. That treatment can be effective only on discovery of the site or sites where gonococci are residual;
4. A tenuous discharge (one that can be drawn in long filaments from the meatus) while generally indicative of prostatic involvement, may evidence a widely dilated minor urethral adnex or a polypus;
5. The preponderating epithelia usually are indicative of the site of disturbance;
6. Curetting the urethra for purposes of examination tends to results that are misleading;
7. The diagnosis of microscopic urinalysis is most frequently confirmed by clinical examination of the patient;
8. That when urine has become macroscopically clear, it by no means indicates the patient's freedom from gonococci;
9. That no rigid instrument can serve for exact diagnosis of urethral coarctations;
10. That for therapeutic purposes, dilators are generally preferable to sounds;
11. That precise diagnosis is obtainable only through the urethroscope;
12. That, however, urethroscopic diagnosis requires completion by microscopy;
13. That for diagnostic purposes, the practitioner is warranted in producing an irritative discharge either by drugs or by the omission of irrigation after dilatation, or both;
14. That the absence of visible glands in the urethra does not prove that none of them are engorged;
15. That in the majority of instances enlarged glands and crypts require local treatment, either by cauterization or electrolysis;
16. That retrostrictural maceration of the mucosa favors aggregation of gonococci;
17. That fissures at the external meatus may harbor gonococci. —*Charlotte Med. Jour.*

OBSTETRICS AND GYNÆCOLOGY.

UNDER THE CHARGE OF

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EMERITUS PROFESSOR OF GYNÆCOLOGY, MEDICAL COLLEGE OF VIRGINIA, SALISBURY, N C.

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PROFESSOR OF OBSTETRICS AND PEDIATRICS, MEDICAL DEPARTMENT UNIVERSITY OF GEORGIA AUGUSTA, GA.

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HÆMATOCELE WITHOUT EXTRA-UTERINE PREGNANCY.—Dr. K. Kobler (Breslau Centralblatt für Gynäkolope, Sept. 28, 1901). Two cases of hæmatocele are reported—one due to traumatism during coitus, and the other due to hemorrhage during an inflammatory process in the pelvis. These cases were operated upon and the conditions studied carefully. They go to prove that extra-uterine pregnancy is not the only cause of pelvic hæmatocele, though it is considered to be so by some observers, and as experienced a man as Fritsch states that he has never seen a case of hæmatocele in which he could absolutely exclude extra-uterine pregnancy as a cause. G. R. W.

TREATMENT OF AFTER-PAINS.—In Archives Medicales, Feb. 1, 1901, Denver Medical Times, October, 1901, Dr. Audebert refers to the physiologic utility of the post-partum contractions of the uterine muscles in expelling fetal debris, blood clots, etc. For this reason, they should be let alone when of slight intensity, only employing slight massage to aid in the expulsion of the clots.

When the pains, however, become so severe and persistent as to cause insomnia, excitement or even mild delirium, treatment is indispensable. While the sedative effects of opiates are incontestable, they suppress the ecbolic uterine contractions necessary for the normal removal of the lochia, and if continued for some time they produce constipation, which is not devoid of risk in parturient women.

Hence it is preferable to resort to other remedies, such as chloral, viburnum or antipyrin. Often fifteen grains of the latter is followed by prompt diminution or even disappearance of the pains. Another similar, but more effective, sedative is salophen, which relieves the pains and does not interfere with normal contractions.

The dose of salophen for this purpose is fifteen grains in a wafer. Within a half hour the pain becomes less intense, but if it persists at the end of two hours, a second dose may be administered. This is nearly always sufficient for the day, though one more dose may be required on the morrow.

The writer reports from the obstetric clinic thirteen cases of afterpains treated successfully with salophen. In some instances the suffering was severe and had continued after the use of hot injections and antipyrin.

The Tampon in Gynecological Therapy.—Maxwell Benjamin, in the Medical Record of July 20, 1901, Medicine, October, 1901, has a paper prepared especially in the interest of the general practitioner in reference to the use of tampons. This treatment is indicated in the large class of patients who find their way to physicians and who are not in need of surgical intervention. In too many cases practitioners neglect the proper application of the tampon, being content with any kind of material and with the patient in any position. It is not contended that tamponing, even if properly done, can replace radical measures, but it often affords relief in cases which refuse more radical measures.

Material.—Any substance which is non-irritating and which provides for capillary drainage, and is easily introduced and retains its resiliency when wet, may be used. Practically the choice is restricted to cotton, wool and gauze. Absorbent cotton is invaluable for the application of fluids, but it is easily compressed into a hard mass and does not afford drainage. This can be obviated by separating the fibers. Non-absorbent cotton may be used where an antiseptic or astringent powder is to be applied, and in some cases it may be used for its mechanical effect; it may be used as a support for an absorbent tampon. Wool is the best material; it is soft, allows drainage, and retains its resiliency for a longer period than cotton. The wool tampon should, previous to its insertion, be covered with vaselin. Wool may be covered with a layer of absorbent cotton, the latter absorbing the medicament, while the central portion of the tampon retains its elasticity and acts as a perfect drain. Gauze is never used by the writer, except in cases where it is necessary to check hemorrhage.

Size.—Numerous small tampons are better than one large one, as the latter cannot be easily manipulated. The cotton tampon which the writer employs is made from a piece of cotton five inches long and three inches wide; it is folded into four thicknesses, and a double thread about six inches long is tied about its center. The wool tampon is prepared in the same manner and covered with a layer of absorbent cotton about one inch in thickness.

Application.—In using the tampon the patient should be in the Sims position, as a rule, as the distension of the vagina is not so great as in the knee-chest position, and the danger of overpacking is lessened. In backward displacements of the uterus the knee-chest position has the advantage of throwing the uterus forward and permitting of the application of the tampon to the posterior fornix. In removing the tampon, which should be done at the end of twenty-four hours, it should be always withdrawn by pulling upon the thread

downward and backward, its removal being facilitated by pressing the perineum toward the coccyx.

Purposes.—Tampons are used for their medicinal and mechanical effects. The medicament may be used for the relief of pain or to produce counter-irritation or the absorption of an inflammatory product, or contraction of relaxed tissues. Glycerin is the best adjuvant to other drugs; it is hygroscopic and will assist in the reduction of enlarged uteri. In erosions of the cervix a tampon carrying a 25-per-cent. solution of ichthyol in glycerin will, besides its germicidal action, cause a desquamation of the epithelial cells of the cervix. This is sometimes followed by a regeneration of the mucous membrane and a return of the cervix to the normal condition. In chronic endometritis or parametritis a tampon of boro-glycerin or ichthyol and glycerin is often of benefit; the altered position of the uterus improves the circulation and helps the local condition. If after several applications there is no improvement, more radical measures are indicated. Tampons are useful in hemorrhage, which they control, not only by pressure, but by carrying the astringent or hemostatic remedies directly to the part. In inflammation of the vagina and vulva a solution of nitrate of silver can be applied directly to the inflamed mucosa, which are then kept apart by a tampon impregnated with boric acid. In malpositions and prolapse the organ can be sustained at a higher level and its circulation improved. In cystocele and rectocele prolapse may be prevented by the introduction of a tampon. In cases of miscarriage prior to the fourth month, a tampon serves a useful purpose in terminating the premature labor. For this purpose gauze is the preferable material for packing.

The Complications and Degenerations of Fibroid Tumors of the Uterus.—Charles Noble, before the British Gynecological Society (The Lancet, July 27, 1901; Medicine, October, 1901) said that hemorrhage is by no means the chief or only danger attending fibroid tumors. They are liable to necrosis, myoxmatous and cystic degeneration, calcareous infiltration, and complicating adnexal affections. He gives the details in tabulated form of 218 cases upon which he had operated. The complications found in sixty-six of these must have inevitably proved fatal without operation; in twenty-five others they would have imperiled life; and in thirty of the remaining patients they would have resulted in chronic invalidism. Seventy-eight of the patients would, at a low estimate, have died from the complications, while fifteen would probably have been a low death roll from hemorrhage, chronic anemia, cardiac and renal degeneration, or other direct effects of the tumors themselves. Based upon the study of complications in these cases he estimates a mortality of 42 per cent. without operation. These figures do not include the large ovarian tumors and the cases of malignant disease. The disappearance of fibroid tumors after the menopause or after pregnancy is merely a curiosity in the history of these growths. In women with fibroids

the menopause is delayed for from three to ten years, and even if improvement followed it necrosis of the tumor might subsequently take place. Twelve of the author's patients were over 50 years of age when they sought relief from sufferings which, according to classical teaching, should have already ceased.

Deaths directly due to fibroid tumors are seldom recorded. When the symptoms become grave operation is generally performed. Those advocating the expectant treatment agree that anemia from hemorrhage indicates operation, yet such a condition materially increases the risk. If left alone more than one-third of the writer's cases would have ended fatally, and more than one-fourth would have been chronic invalids. Of the remaining one-third but few would not have been incommoded by the tumor. He is not sure that his experience represents the average in these cases, as no systematic study has been made of them in reference te the complications. The only table resembling his own is that of A. Martin, who published 205 cases, in each case showing the complications but excluding the condition of the adnexa. Allowing for this difference in classification the results are similar.

Obstetric Aphorisms.—Medicine, October, 1901, quotes the following from the Indian Lancet and Cincinnati Lancet-Clinic:

1. Never rupture membranes unless you are prepared to finish delivery at once, if necessary, or unless you confine the patient artificially within a limited period of time.
2. External measurement of pelvis must be practiced to yield trustworthy results.
3. The external (Baudelocque's) diameter is never reliable.
4. The distance between the crests should be about an inch greater than it is between the spines. Equal distances or a larger interspine indicate a deformed pelvis.
5. Contraction at the outlet is extremely rare, and if it occurs it is usually the result of an ankylosed coccyx.
6. If the index finger can touch the promontory there is always a reduced conjugate diameter.
7. If, on the introduction of two fingers, the middle one does not reach the promontory, the conjugate is normal or more than normal.
8. Whenever the whole hand can be passed through the superior strait, there is a possibility of withdrawing the child through the natural passages.
9. If the hand cannot be passed Cæsarian section is indicated.

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(From The Medicus, May, 1901.)

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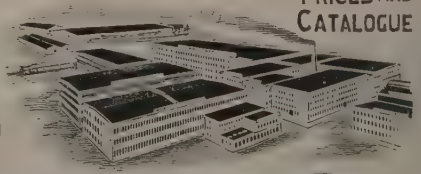

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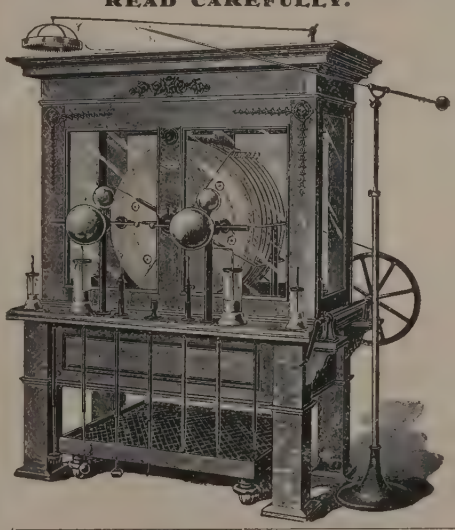

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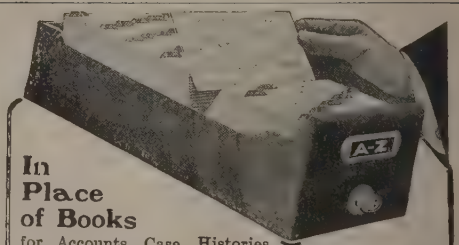

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